

**TAXONOMIC REMARKS ON SOME WEST-PALAEARCTIC
LONGHORN BEETLES (COLEOPTERA, CERAMBYCIDAE)
AND DESCRIPTION OF A NEW SUBSPECIES**

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Abstract — We address the taxonomy of several west-palaeartic longhorn beetles and their geographical variation. In particular we describe new subspecies of *Glaphyra marmottani* and *Stictoleptura scutellata*..

Key words — Taxonomy, *Cerambycidae*, *Mesoprionus tangerianus*, *Vadonia unipunctata*, *Anastrangalia dubia moreana*, *Stictoleptura cordigera*, *Stictoleptura scutellata*, *Nathrius*, *Glaphyra marmottani andalusica*, *Xylotrechus*, *Monochamus saltuarius*, *Leiopus insulanus*.

Résumé — **Remarques taxinomiques sur quelques Cérambycidés (Coleoptera, Cerambycidae) de l'Ouest-paléarctique et description d'une nouvelle espèce.** Nous précisons la taxonomie de plusieurs Cérambycidés de l'ouest de la région paléarctique et leur variabilité géographique. En particulier, nous décrivons des sous-espèces nouvelles pour *Glaphyra marmottani* et *Stictoleptura scutellata*.

Mots clés — Taxonomy, *Cerambycidae*, *Mesoprionus tangerianus*, *Vadonia unipunctata*, *Anastrangalia dubia moreana*, *Stictoleptura cordigera*, *Stictoleptura scutellata*, *Nathrius*, *Glaphyra marmottani andalusica*, *Xylotrechus*, *Monochamus saltuarius*, *Leiopus insulanus*.

Introduction

In this paper we describe the new subspecies *Glaphyra marmottani andalusica* from Spain. Further we critically discuss some taxonomic choices made in the Catalogue of Palaeartic Coleoptera (LÖBL & SMETANA ed. 2010), hereinafter referred to as CPC. For instance, *Vadonia unipunctata gallica* Podaný from southern France should be considered as a valid subspecies. Similarly, we assert the validity of *Mesoprionus tangerianus*, *Anastrangalia dubia moreana*, *Nathrius berlandi*, *Nathrius cypericus*.. We discuss the geographical variability of *Stictoleptura scutellata* and the so far unpublished variability of imagoes from Southeast France is specifically pointed out. We advocate for further investigating the geographical variability of *Monochamus saltuarius*. Finally we propose to consider our *Leiopus insulanus* Sláma, 1985, from Crete, as a valid subspecies of *L. nebulosus*.

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Mesoprionus tangerianus (Sláma, 1996)

I described this species from Morocco as *Prionus tangerianus* Sláma, 1996. It is listed in CPC as a synonym of *Mesoprionus besicanus*, Fairmaire, 1855, however, the holotype is completely different from *M. besicanus*. Dissimilarities between *tangerianus* and *besicanus* listed in the original description, and the photographs below, clearly establish the validity of the species. I was very surprised with the arguments put forward to classifying this species as a synonym.



Figure 1a: *Mesoprionus besicanus*.



Figure 1b: *Mesoprionus tangerianus*.

Vadonia unipunctata gallica Podaný, 1963

Vadonia unipunctata Fabricius, 1787 sensu lato is supposedly found from North Africa and West Europe to Kazakhstan. The type locality is unclear since bibliographical data differs. According to Sama (2002), France is listed as the place of description of the nominal form, Villiers (1978) lists Dresde (?), Heyrovský (1955) lists Germany. Nominal form is found, according to literature, from France to Kazakhstan. It is light-coloured and has a black round spot in the middle of each elytra. As far as I know, it is not variable. *Ssp. occidentalis* K. Daniel & J. Daniel, 1891, is listed in the western location of occurrence (Spain, France, Italy, CPC does not list Morocco). Its colour is very

2A



2B



Figure 2°: 2A: *Vadonia unipunctata gallica* ♂, 2B: *Vadonia unipunctata gallica* ♀, 2C - *ssp. gallica* TYPUS (photo Nat. Mus. Bratislava).

variable, from light to black. Both *ssp. ohridensis* Holzschuh, 1989, and *ssp. makedonica* Holzschuh, 1989, are also similarly coloured from light to black. They come from Balkans far from the occurrence of the *ssp. occidentalis*. Locations of occurrence are relatively limited. East of the occurrence of the *ssp. occidentalis* was described a *ssp. gallica* Podaný, 1963, which is light-coloured or is faintly darkened around scutellum and suture. *Ssp. gallica* was described by Podaný, 1963, only with a very brief description, and most authors do not take this subspecies into account. It is listed in CPC as a synonym of *ssp. occidentalis* K. Daniel & J. Daniel, 1891, which is incorrect in my opinion. The next *ssp. dalmatina* J. Müller, 1907, is listed in CPC only from Croatia, but findings from Balkans and Asia were also often listed under this title. They have the same colour as the nominal form, but morphologically they are more or less different. *Vadonia unipunctata* taxonomy is complicated and in my opinion, it is not yet exactly clarified. In my collection I had about ten groups from different locations of eastern occurrence, mutually more or less different, but mostly also different from *V. unipunctata* from Central and Western Europe.

I collected *ssp. gallica* in south-western France (Alpes-Maritimes and Var). The species was very abundant. I collected many specimens and I saw hundreds of other, but not a single darker imago. On average, the body size in all locations was distinctly smaller than the nominal form or *ssp. occidentalis*. In my opinion, this subspecies has a qualifying taxonomic value.

Description originale de Podaný (1963): Comme la forme typique, mais en moyenne un peu plus petite (10-12 mm). Elytres non rouge sombre, mais rouge clair mat à rouge jaune, recouverts à la base d'une maigre pubescence jaune, courte et dressée (f. typique . pubescence dense, longue et dressée). Pronotum avec une maigre et courte pubescence jaune dressée (f. typique: pubescence longue et dressée). Se distingue surtout par les élytres clairs.

Andon, Alpes-Maritimes, Montagne de l'Audiberghe, 24.7.1960. Type et paratypes : coll. Nat. Mus. Bratislava et M. Leseigneur.

***Anastrangalia dubia moreana* (Pic, 1906)**

Under this taxon we (Sláma & Slámová, 1996) listed specimen of *Anastrangalia dubia* found in Greece on Peloponnese. This taxon is listed in CPC only as a synonym. However, it is a very distinct subspecies, which essentially differs from the nominal form by different relative lengths of antennal segments. *A. dubia dubia* Scopoli, 1763, has the 5th antennal segment shorter than the 3rd and its 4th segment is longer than the 6th. *A. dubia moreana* Pic, 1903, has the 5th antennal segment longer than the 3rd and its 4th segment is equally long as the 6th. Other features, such as the shape of tempora, tarsi, etc., are less significant. Males of this subspecies often have darker elytra; the elytra can even

be fully black. This colouring is, for instance in Central Europe, extraordinarily rare in males of the nominal form. During 70 years of my collecting career I have found mostly black coloured male imagoes only twice, once in Moravia and the second time in eastern Slovakia.

Stictoleptura cordigera (Fuessly, 1775)

For this species, and similarly with other species, it is true that imagoes from various locations of occurrence are morphologically different. That means that if we study them thoroughly, way we can roughly tell from which location a particular specimens comes from. For example, when examining the authenticity of locations in Czech Republic, I found out that some specimens matched imagoes from France = *S. cordigera cordigera* Fuessly, 1775 (especially older findings of imagoes) and other from Balkans = *S. cordigera illyrica* G.Müller, 1948 (especially newer findings). Therefore, the validity of some findings from Czech Republic seems to me doubtful, and it demands deeper examination (Sláma, 1998). A similar thorough examination would be appropriate for imagoes found in other countries of Central Europe.

Occurrence of *ssp. anojiaensis* Sláma, 1982, is listed in CPC not only in Crete, but also in Turkey. I have not seen this subspecies from Turkey, but it would be appropriate to examine the occurrence and correctness of the determination of this subspecies not only by the colour of the spot on the elytra. Adult specimens of *S. cordigera anojiaensis* from Crete are actually morphologically considerably distinct. I also do not know if the occurrence of this subspecies listed from Turkey is geographically different from the nominal form of *S. cordigera cordigera*, or if it is only a specimen with a similar black spot on elytra. Nevertheless, I think that imagoes found in Turkey (perhaps also in Bulgaria) should be under another subspecies, whose name might be one of the listed synonyms.

Stictoleptura scutellata (Fabricius, 1781)

I am listing the name according to CPC. This species was described as *Leptura scutellata* Fabricius, 1781, from Italy, and for many years it was usually listed under this genus name. Miroshnikov (1998ab) integrated this species into a new described genus *Melanoleptura* in his comprehensive work on the taxonomy of *Lepturini*. I believe that the classification of this species in a distinct new genus *Melanoleptura* is correct. Imagoes found in Tunisia, Algiers and Sicily are listed as *ssp. melas* Lucas, 1849 (Sama 2002) or *ssp. melaena* Lucas, 1849 (Villiers 1946, 1978, Demelt 1969, Sama 1988), or formerly also as an individual species

Leptura melaena (melas) Lucas, 1849 (Aurivilius, 1912, Winkler, 1929 The name *melas* Lucas, 1849 has priority over *melaena auct.*

Stictoleptura scutellata (s.l.) is fairly widespread: North Africa (Tunisia, Algiers), Europe from Iberian Peninsula to the west to approximately Volga to the east; it is absent in the extreme north of Europe (it can be found in the south of Sweden, in Russia from the south to approximately Volgograd), the Crimea, Asia Minor, Caucasus, Transcaucasian, and Iran (for more info see Danilevsky, 2012b).

I have studied the variability of this species for 20 years. While examining a comprehensive amount of material from various locations of its occurrence, I found that the taxonomy of this species is not completely clarified. As we observed above with *Stictolepture cordigera*, material from various geographically more or less distant locations of occurrence is morphologically more or less different (even within the same subspecies). In some areas the imagoes vary so much that it is possible to consider them as a distinct subspecies. However, this brings up the question, what geographical variances within one species is possible to consider a subspecies with a different name, or just a less significant regional variability. Opinions of many entomologists will certainly differ. Within this species the more distinct are the above mentioned *ssp. melas* Lucas, and the recently described *ssp. miroshnikovi* Danilevsky, 2012, which should be considered as a valid subspecies. Less distinct, but still different, is the material from the region of Alpes-Maritimes, which appears intermediate between the nominal form and *ssp. melas*. It is probable that imagoes listed in the literature as *ssp. melas*, e.g. from Corsica (Demelt, 1969, denied by Villiers 1978, Sama 2002) or from Spain (Vives, 2001), belong to similar geographical transitional forms. It could be also applicable to other locations. The least distinct potential subspecies in the materials I had a chance to examine is from Caucasus. Miroshnikov (1998), (and also Danilevsky (2012)), deals with the geographical variability of this species in his comprehensive work about longhorn beetles of category „*Anoplodera* complex“, where he lists a number of more or less differentiating characteristics of materials coming from various locations, e.g. from Caucasus and Talysch, and compares them also with the *ssp. melas*. When assessing the geographical variability, I do not list any less notable variations, for example in the pilosity that varies in larger areas of exploration, as Miroshnikov states, but it is also fairly variable in local origins of minor extent, and often varies in individual imagoes. As the main criterion I considered especially the proportions of antennal segments, which are often listed also as the criteria for distinguishing species of longhorn beetles, and even the shape of various body parts. Variations are also found in the shape of genitalia, but these sometimes differ even amongst individual imagoes.

I believe that the variety *stichai* Heyrovský, 1931, characterized by lightly coloured rather than black pilosity of elytra, has no geographically distinct value. I saw specimens with light or gold coloured hair which came infrequently from France and more often from Central Europe and Iran. It is the same with more or less brown coloured imagoes (for example with brown elytra or scutellum). In Europe I saw these imagoes only from Slovakia and Ukraine, where, compared to black adults, they are found only very rarely. The ratio is one brown imago to many hundreds of black specimens (according to abundant observations in nature and partially also according to their representation in collections). This brown colouring is probably more common in Transcaucasia, where the brown and black coloured imagoes might be perhaps represented in the same quantities.

a. *Stictoleptura scutellata scutellata* Fabricius, 1781

Typical locality: Italy

Compared material: Czech Republic, Slovakia, Transcarpathian Ukraine, Austria, Slovenia, Macedonia, Greece, Bulgaria (947 black colored and 11 partially brown imagoes).

Punctuation of scutellum and elytra is deep, rough and rather wrinkled. Elytra are longer than twice the width at the base. Tempora are considerably protruding backwards and sharply rounded. Pilosity of the scutellum and elytra is rather flat and short, black, brown or lightly yellowish-gold. Colouring is usually black; infrequently the elytra, antennae and scutellum are completely or partially brown or brownish-yellow. Serrated widening of antennal segments is the most pronounced in the last part and their endings are sharper - the tip is blunt (Photo 1). The 3rd antennal segment is the same or longer than the 1st, the same or shorter than the 5th, and always longer than the 6th and 7th segments. The 2nd segment of rear tarsi is 1,40 to 1,55 times longer than the 3rd (without claws), in Bulgarian specimens 1,47 to 1,70 times.

b. *Stictoleptura scutellata maritima* n. ssp.

Location: Southeast France (Alpes-Maritimes, Var)

Compared material: 52 males and 48 females (all black specimens) - France 83, Aiguines, Saint-Raphaël, Fréjus. Pierre Berger and J. & M. Sláma leg..

Tempora slightly protruding backwards, more bluntly rounded (Photo 2). The 3rd antennal segment is shorter than the 1st and the 5th, in males is usually shorter than the 6th and the 7th and in females is longer. Punctures on the scutellum and elytra are larger and deeper. On average, elytral punctuation is thinner in males. The elytra of both males and also females are shorter than in the nominal subspecies. Pilosity of the elytra is black, seldom yellowish-gold.

c. *Stictoleptura scutellata ochracea* Faust, 1879 (?)

I have seen several specimens of *S. scutellata* from Caucasus that were slightly different than the nominal form (see below), but completely different than the imagoes from Transcaucasia. Although differences from the nominal form are not clearly significant enough, possibly it could be named *ssp. ochracea* Faust, 1879).

Spread: Caucasus (Abchazia)

Compared material: 8 specimens.

Tempora on the head are not as strongly protruding backwards, the rounding is blunter. The main widening of serrated antennal segments starts immediately from the first third or from the middle of the segments and the outer angle is blunter (Photo 3). Body is wider at the shoulders in males, making the elytra more convergent. The length of elytra is equal to the twice the width at shoulders. Pilosity is similar to the previous species. The 2nd segment of rear tarsi is 1,36 to 1,40 times longer than the 3rd.

d. *Stictoleptura scutellata miroshnikovi* Danilevsky, 2012

The CPC lists *ssp. ochracea* Faust, 1879, from Azerbaijan and from Iran. Imagoes from this area were described as the *ssp. miroshnikovi* Danilevsky, 2012. For explanation, see Danilevsky, 2012

Location Transcaucasia: Iran, Azerbaijan.

Compared material: 18 specimens from Iran.

The shape of tempora is similar to those of *ssp. scutellata*. The 3rd antennal segment is very short; it is almost the same as the 4th and considerably smaller than the 1st, 5th, 6th and 7th, especially in males. The last segment is long. Narrowing of the sides of the scutellum to the front is gradual. Punctuation of both scutellum and elytra is mostly smaller than in *ssp. scutellata* (the size is approximately 0,6 to 0,8:1). The rear part of elytra is not matt like in the other subspecies, but shiny. I need to add that imagoes from various locations of Iran slightly differ.

e. *Stictoleptura scutellata melas* (Lucas, 1846)

Typical locality: Algiers

Spread: Tunisia, Algiers, Sicily (Sama, 1988)

Compared material: 16 specimens from Tunisia and Algiers

Rounding of the tempora is even blunter; the 3rd antennal segment of both males and females is smaller than the 1st, 5th, 6th and 7th. The shape of the scutellum is almost identical to the aforementioned subspecies from southern France, but the punctures are slightly larger and denser, especially on the elytra. Pilosity of the scutellum is flat with thin, with standing hairs up to twice longer.

The elytra are also shorter and wider than those of the nominal form; the length is equal to twice the width of shoulders.

Here is a short determination key of *Stictoleptura scutellata* geographical subspecies based on antennal segments. In the key I am not listing the possible *ssp. ochracea* from Caucasus, which is just slightly different.

- 3rd antennal segment is the same or longer than the 1st; the same or shorter than the 5th, always longer than the 6th and 7th.
..... *ssp. scutellata* (Fabricius, 1781)

- 3rd antennal segment is shorter than the 1st and 5th, in males it is usually shorter than the 6th and 7th, in females longer.
..... *ssp. maritima n. ssp.*

- 3rd antennal segment is very short; it is almost the same as the 4th and considerably smaller than the 1st, 5th, 6th and 7th, especially with in males. Transcaucasia, Iran, Azerbaijan.
..... *ssp. miroshnikovi* Danilevsky, 2012

- 3rd antennal segment of both males and females is smaller than the 1st, 5th, 6th and the 7th. North Africa.
..... *ssp. melas* (Lucas, 1846)

***Nathrius berlandi* Villiers, 1946**

The discovery of this species as a new species for Spain was published in 2001 (Sláma & Sorli). More specimens hatched from the transported branches of *Ficus carica* L., but unfortunately I came across them too late. At first I believed that it was just *N. brevipennis* Mulsant, 1839. Belatedly, I prepared only one specimen; other specimens remained at the bottom of the breeding container, where they went moldy and fell to pieces. I determined the specimen and published it as *Nathrius berlandi*. Vives later determined the same specimen as *N. brevipennis*! Sama did not see the said specimen and ignored its publishing in

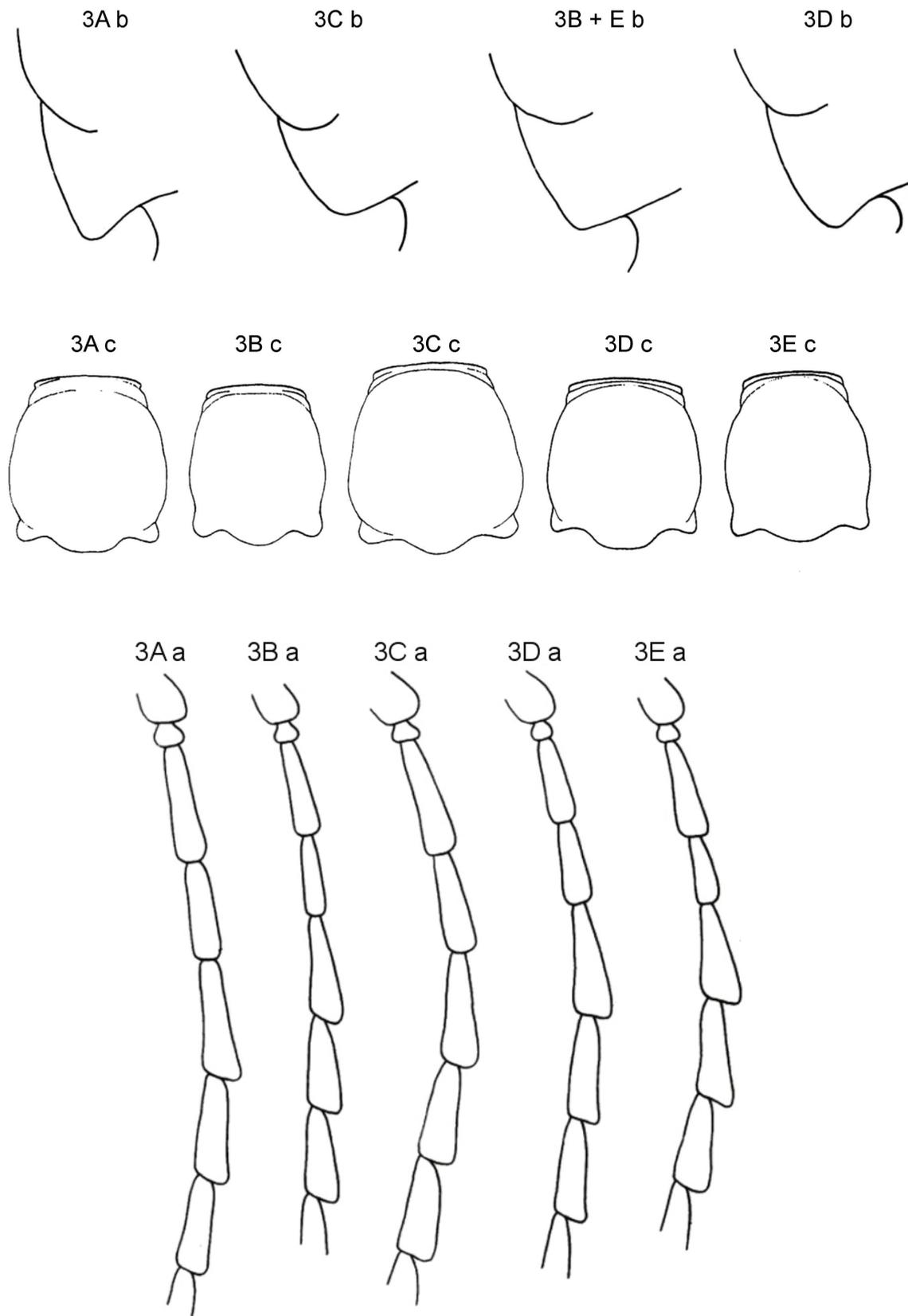


Figure 3: 3A: *Stictoleptura scutellata scutellata*, Czech Republic ; 3B: *Stictoleptura scutellata maritima* ssp. n., France (Alpes-Maritimes) ; 3C: *Stictoleptura scutellata ochracea* (?), Abchazia ; 3D: *Stictoleptura scutellata miroshnikovi*, Iran ; 3E: *Stictoleptura scutellata melas*, Tunisia ; a: antenna, b: rounding of the head, c: scutellum

CPC. In 2011, Rapuzzi again confirmed the accuracy of my determination of the *N. berlandi*. I published the description of the said specimen in a revision of *Nathrius* species (Sláma & Berger 2006). I am convinced that since I succeeded in raising several specimens in the wood, there should be no problem for other entomologists to raise or capture other specimens in Spain and confirm the correctness of my finding. The locality of this finding is Andalucía, Nerja (Málaga) 1991, J. & M. Sláma leg..



Figure 4: *Nathrius berlandi*

Nathrius cypericus Sláma & Berger, 2006

This species was described from Cyprus. It is listed as a synonym in CPC, without examination of the holotype. *Nathrius cypericus* was collected in nature from *Amygdalus communis* L. on 29. 5. 2002. One imago hatched in 2003 and another one in 2004 out of little branches collected by Sláma from the same tree. The development of the second specimen must have taken at least two years. Berger raised an imago in a little branch of *Prunus dulcis*. Makris raised an imago in *Pistacia*. I believe that differences between the species *N. brevipennis* (which also occurs on Cyprus), *N. cypericus* and *N. berlandi* Villiers, 1946, were sufficiently described on the 8 pages of the original description. I cannot agree with Sama's text on page 51 in CPC. I compared 96 species of *Nathrius brevipennis* from various localities and also locations of occurrence from 13 countries. During my examination I did not find the variability of imagoes from various locations of occurrence, as stated by Sama. I do not see a reason why two very close species could not be found in Cyprus. I think it is necessary to properly re-examine the imagoes of *Nathrius* species from Cyprus and assess the variability of this species, and only then express the final conclusion. Maybe it would be also appropriate to compare the DNA.

Glaphyra marmottani andalusica n. ssp.

I published the discovery of the type specimen in 2001 (Sláma & Sorli) under the name *Molorchus marmottani* Brisout, 1863. I am not aware if another specimen was found since then. This specimen is very different from the nominal form. I published these differences at that time. I hesitated for a long time, whether this specimen should be described on a single imago. Opinions of entomologists concerning this issue vary. Sometimes it takes many years before another specimen of the same description can be found. For example, the first *Libanoclytus tommasoii* Sama, Rapuzzi, Kairouz (2010) was found in 1902, and it was not described until after another specimen was found in 2007. Had it been described immediately, this specimen would not have been overlooked for more than 100 years. Even more specimens may possibly be stored in various collections as an unknown species.

Vives (in 2001) determined this specimen as *Glaphyra prope marmottani*. Rapuzzi (in 2012) determined it later as *Glaphyra marmottani* ssp. ?. I am of the opinion that it is probably a new species, but I am describing it as a subspecies on the account that other colleagues share this opinion. Entomologists should pay more attention to this taxon and hopefully they will be successful in finding more specimens in the future. Locality: Andalucía, Ubrique (Cádiz) 1995, J. & M. Sláma leg..

The species *Glaphyra marmottani* Brisout, 1863 was described from southern France. I compared the type of *ssp. andalusica* with specimens from southern France, Czech Republic and Slovakia. It appears very different. The body is larger and more robust. The scutellum of the nominal form is coarsely dimpled; the dimples are large and they touch each other nearly or completely, so that spaces between them are much narrower than the dimples. *Ssp. andalusica*'s scutellum is finely dimpled. Even though the scutellum is larger than of the nominal form, the dimples are much smaller and thinner. The spaces between them are wider, so the scutellum is shinier and has predominately a smooth surface. Also the punctuation on the antenna and thighs is much thinner. The elytra are 1,25 times wider than long, against 0,9 for the nominal form. The width of first antennal segment is 46% of its length. The first segment of tarsi is longer and the second is shorter, i.e. 45%, in comparison with 0,63% of the nominal taxon. Pilosity on the head, the pronotum, the elytra and the sides of the body is thicker and longer.

The size is 7,8 mm, the length of the antenna is 14 mm, which is longer in proportion to body length than in the nominal form.

The development took place in a small branch of *Pinus*. In September of 1992 I brought a branch from a still green cut tree and an imago of *G. marmottani andalusica* hatched in 1995, so the time of development of this imago took three years. The species *Monochamus galloprovincialis galloprovincialis* Germar, 1818, and *Pogonocherus sturani* Sama & Schurmann, 1982, also developed in this branch.

***Monochamus saltuarius* Gebler, 1830**

When I compared specimens from Far East and Europe (in Czech Republic and Austria), I concluded that these are completely different subspecies. It would be advisable to compare typical specimens and materials even from other locations. In my opinion, subspecies from Far East and Europe are very distinct. I am attaching photographs of both forms. It would be certainly appropriate to distinguish imagoes from Far East and the European region by naming a new subspecies, but I did not have the opportunity to research the imagos from Gebler's description, so I do not know whether they were from the eastern or the western areas of occurrence.



Figure 5: *Glaphyra marmottani andalusica* n. ssp.



6AA



6AB



6BA



6BB

Figure 6: 6AA, 6AB: *Monochamus saltuarius*, Europe ; 6BA, 6BB: *Monochamus saltuarius* – Far East.

Leiopus nebulosus insulanus Sláma, 1985 stat. n.

Sama listed *Leiopus insulanus* Sláma, 1985, from Crete in CPC as a synonym to *Leiopus nebulosus* Linnaeus, 1758, reportedly according to Wallin:

Sama (Catalogus 2010) : The holotype of *L. insulanus* has been examined, and the synonyms confirmed by H. Wallin, while preparing for the description of *L. linnei* Wallin, Lundberg & Hagg, 2009. But Wallin did not list it as a synonym.

Wallin (2009): The male genitalia characters of *L. insulanus*, are similar to those described for *L. nebulosus* but not *L. linnei*.

We agree to consider it as subspecies to *Leiopus nebulosus*, but definitely not as a synonym, because it is morphologically clearly different (see the original description).

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