

A description of two new subspecies of European Longhorn-Beetles (Coleoptera, Cerambycidae)

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Abstract: *Agapanthia asphodeli balcanica* **ssp. n.** from Greece and *Tetrops gilvipes mikati* **ssp. n.** from Slovakia are described.

Many years ago, when I collected *Agapanthia asphodeli* (Latreille, 1804), specimens caught in France exerted obvious differences from those found in Greece. Differences between the nominotypical form collected in France (Figs 1-2) and imagines collected in Greece were particularly distinct in photographs. A description of the new subspecies *Agapanthia asphodeli balcanica* **ssp. n.** from Greece is thus presented here.

The description of *Tetrops gilvipes mikati* **ssp. n.** is based on a series of specimens caught in East Slovakia many years ago, which was published by me before (Sláma, 2018) as *Tetrops gilvipes adlbaueri* Lazarev, 2012 - new to Slovakia.

Several abbreviations are used in the text:

MM - collection of Miroslav Mikát (Hradec Králové, Czech Republic).

NMP - National Museum (Prague, Czech Republic).

SMNK - Staatliches Museum für Naturkunde Karlsruhe, Landesmuseum.

***Agapanthia asphodeli balcanica* ssp. n.**

Figs 3-4

The description is given in the form of a differential diagnosis with summarizing particular characters in the table below.

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<i>Agapanthia asphodeli asphodeli</i> (Latreille, 1804)	<i>Agapanthia asphodeli balcanica</i> ssp. n.
Eyes wider and shorter, the average eye length-to-width ratio is 1.08.	Eyes narrower and longer by about 10%, the average eye length-to-width ratio is 1.13.
Antennae of males exceeding beyond elytral apex by more than elytra length (typically by 10-30%). Black colour of apical ends of antennomeres present at most in terminal $\frac{1}{3}$ of antennomere length, or only antennomere apices are black.	Antennae of males are shorter, exceeding beyond elytral apex by less than elytra length; (only exceptionally slightly longer). Black apical parts of antennomeres are wider, present in about $\frac{1}{3}$ to $\frac{1}{2}$ of antennomere length.
Pronotum is narrower (width-to-length ratio is 1.15-1.22). Intervals between punctures are very small, often quite vanishing. Yellow lateral erect pubescence of pronotum is sparser and shorter. Lateral part of basal pronotal margin with very short dense grey pubescence.	Pronotum is wider (width-to-length ratio is 1.29-1.42). Intervals between punctures are usually as wide as puncture half-width. Yellow lateral erect pubescence of pronotum is denser and longer. Lateral part of basal pronotal margin with very short sparser grey pubescence, intermixed with longer, yellow, hairlike setae.
Body usually narrower and longer. Punctuation of elytra is moderately denser. Surface area between punctures is rather flat, weakly shining. Elytra are covered with rather strong setae.	Body usually wider and shorter. Punctuation of elytra is moderately sparser. Surface area between punctures is uneven, brighter. Setae on elytra are distinctly finer.

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Materials. Holotype, 1 male, Graecia, Attiki, Villia, 26.3.1991, J. & M. Sláma lgt. - SMNK; 14 Paratypes: 1 male, 1 female, Graecia, Attiki, Villia 18.3.1991, Graecia, Gerania, 6.6.1981, J. & M. Sláma lgt. - SMNK; 1 male, 1 female, Greece, Meteora, 2 km. NE of Kalampaka - Kastraku, 8.5.2013, lgt. L. Skořepa a cool - NMP; 3 males, 2 females, Graecia, prov. Pelloponese, Tripotama env. (Achaia), 15.-17.4.2005, 40 km SE of Kalavryta, Expedition 37°52N,21°53E, 675 m, P. Bogusch & J. Skuhrovec lgt. - NMP; 1 female, Grece, Pelopones, Arkaia prov., Paradela env., 11.-4.6.2004, Ivo Martinů leg. - NMP; 2 males, 2 females, Kaesariani Attika, Mař. et Táb., 1936, Coll. Bartoň - NMP.

Discussion. Specimens from several French locations were used for comparison: F O6 St. Rafael, F 86 Riboux, F 66 Banyuls s. Mer., all in SMNK.

Five specimens labelled “Süd. Spanien, Andalusien, Dr. Kallert, Hamburg” (NMP) were also used for this purpose. These imagines were more distinctively different from the new subspecies than those from France. They have longer antennae, shorter ending of elytra and tomentum with a rusty brown tint. There is a possibility that they belong to another subspecies, possibly formerly described as *Agapanthia reyi* Mulsant et Godard, 1870 (currently accepted as a synonym of *A. a. asphodeli*). E.Mulsant and A.Godard undoubtedly knew the French specimens of *A. asphodeli* describing *Agapanthia reyi*, and provided their description, since they observed the difference from the Spain specimens.

Derivatio nominis: The name *Agapanthia asphodeli balcanica* was chosen based on the area of its occurrence, the Balkan Peninsula.

Tetrops gilvipes mikati ssp. n.

Figs 5-6

According to Lazarev (2012) *Tetrops gilvipes* includes five subspecies: *T. g. gilvipes* (Faldermann, 1837) is known from South Russia, Georgia, Abkhazia, Armenia and Turkey, *T. g. efetovi* Lazarev, 2012 occurs in Ukraine and Crimea, *T. g. murzini* Lazarev, 2012 - in Turkmenia, Azerbaijan, Talyshistan and North Iran, *T. g. niger* Kraatz, 1859 in Italy, Switzerland and France; all the above four subspecies have dark brown to black elytra, excepting

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T. g. efetovi having yellow to black elytra. *T. g. adlbaueri* Lazarev, 2012 with always yellow elytra was described from Bohemia.

I have kept in my collection dark specimens of *Tetrops* sp. from Slovakia for many years. Different opinions concerning their determination were supposed, such as black-coloured *T. praeustus*, etc. I had recently a chance to study more imagines collected by the same entomologist on the same day and at the same location as before. After their careful examination I concluded that they belonged to *T. gilvipes* and were different from all known subspecies. The taxon is described below as *T. g. mikati* **ssp. n.**

T. gilvipes has a longitudinal row of very short, dense setae on sides of pronotum above the pronotum bottom edge, which is likely to be one of principal characters of the species. These setae are not always easy to observe, since the specimens can be dirty, the setae on the pronotum can be glued together, the insect underside is frequently covered with glue, or the setae can be damaged in the course of the mounting process. *T. gilvipes* also shows differences in body shape: its body is rather flat, less convex and shorter. Measurements revealed that the ratio of the elytra length to the elytra width at the base is 2.51 in males and 2.56 in females. The results of my measurements were even 2.36 to 2.45 in females of the nominotypical form from Georgia. In *T. g. adlbaueri* the ratio was 2.61 to 2.66. In *T. praeustus* it was 2.63-2.81 in males and 2.55-2.68 in females; body is longer and more convex.

The descriptions of all subspecies can be found in the work by Lazarev (2012) and thus, I am presenting a description of the new subspecies only. *T. g. mikati* ssp. n. has stronger and longer hair-like setae on antennae compared to other subspecies; pronotal punctation finer; elytral punctation is also finer with exception of one specimen; elytral colour is dark brown to nearly black or yellow with distinctly black apex (in about 5/6 elytral length), or possibly also with dark elytral base; elytral pubescence is longer by 1/3 to 1/2 compared to the nominotypical form, lighter at base, brown toward apex, not always uniform; anterior legs are light brown, intermediate and posterior femora and possibly tibiae and tarsi can be darkened to different extents. In other subspecies of *T. gilvipes*, the legs should be yellow. All the specimens were collected on *Frangula alnus*.

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Materials. Holotype, 1 male, Slov. b. or., Bukovské vrchy, Nová Sedlica, 7.7.1984, M. Mikát leg. - MM; 4 Paratypes: 1 female, Slov. b. or., Bukovské vrchy, Nová Sedlica, 7.7.1984, M. Mikát leg. - MM; 1 male, 2 female, Slov. b. or., Bukovské vrchy, Nová Sedlica, 7.7.1984 - SMNK.

Discussion. The fact that the taxonomy of the genus has not yet been satisfactorily solved is a matter of general knowledge. A number of European entomologists paid their attention to this problem, but no reliable solution has been achieved till the present time. *T. praeustus* (Linnaeus, 1758) was the first species described in the genus. All the Central-European findings were referred under this name. Švácha (2001) stated two different *Tetrops* species based on larval morphology corresponding to *T. praeustus* and *T. gilvipes*. Lazarev (2012) wrote that *T. g. adlbaueri* „probably comes from *T. gilvipes* larvae“. Thus, in this respect, it is not obvious whether the problem was solved by the description of imagines with longer setation of elytra as *T. gilvipes adlbaueri*. *T. praeustus anatolicus* Özdikmen & Turgut, 2008 was described from Anatolia also based on longer elytral pubescence. Is it true *T. praeustus*? Unfortunately, I am quite unsure concerning the appearance of typical *T. praeustus*. If the taxon comprises imagines with short elytral pubescence, then there is a question which species belongs so called “*T. p. anatolicus*” to? I found a number of variations and groups with differences in the pubescence, punctuation and colour of elytra during my inspection of *T. praeustus* (imagines with short pubescence). For example, in one year, I reared imagines with considerably black end of the body. Next year, I obtained (perhaps from a different piece of wood) imagines with elytral apices only slightly blackened. Did they belong to the same species? There is a further question, whether dark brown or black imagines, formerly considered as *T. praeustus* are not actually *T. gilvipes* and this possibility is quite likely. The problems could be solved by entomologists rearing imagines from the wood. Many question could be certainly answered based on the common identification of imagines and larvae.

After comparing material available for me, I concluded that the *T. g. adlbaueri* does not completely fit the series of *Tetrops gilvipes* subspecies in terms of its colour, average body size, and morphological appearance and that it should be preferably

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considered as another species - *Tetrops adlbaueri*. This is solely my hypothesis, but I believe that it is justified.

Etymology. The name *Tetrops gilvipes mikati* was chosen after the collector, entomologist Miroslav Mikát.

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Figs 1-2. *Agapanthia asphodeli asphodeli* (Latreille, 1804), France: 1- male, 2 female.
Figs 3-4. *Agapanthia asphodeli balcanica* **ssp. n.**: 3 - Holotype, 1 male, Graecia, Attiki, Villia, 26.3.1991, J. & M. Sláma lgt.; 4 - Paratype, female, the same label.
Figs 5-6. *Tetrops gilvipes mikati* **ssp. n.**: 5 - Holotype, male, Slov. b. or., Bukovské vrchy, Nová Sedlica, 7.7.1984, M. Mikát leg.; 6 - Paratype, female, the same label.

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