

**CONTRIBUTION TO THE TAXONOMY OF THE LONGHORNED BEETLE
GRACILIA MINUTA (F.) (SYN. GRACILIA ALBANICA CSIKI) AND SOME
NOTES ON ITS BIONOMY (COLEOPTERA, CERAMBYCIDAE)**

MILAN SLÁMA

(Forestry and Game Management Research Institute at Zbraslav-Strnady)

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Gracilia albanica Csiki (1931: 278) was described according to one specimen from Kula Ljums in Albania. Later, H. Waldmann from Darmstadt caught several specimens. This material was determined by Tippmann (1948: 35). He gave the differentiating features of both species and mentioned that he had investigated 6 ♂♂ and 2 ♀♀ *Gracilia albanica* Csiki.

In the same year (1948) Müller classified the species *Gracilia albanica* Csiki as a synonym of *Gr. minuta* (Fabr.). But due to the fact that this classification was done only on the basis of Planet's description (1924) and he gave no concrete data of his own, two independent species are mostly mentioned in the literature.

In the year 1957-1962 I had the opportunity to breed more than four hundred imagoes of the genus *Gracilia* Serv. collected on wicker wrappings of bottles in the Forestry and Game Management Research Institute at Zbraslav-Strnady. The ocular inspection showed that both of the described species did occur there. The detailed observation of material led to the conclusion that the conception of Müller was correct and that only one species - *Gracilia minuta* (Fabr.) - was involved. To verify thoroughly this fact I collected pairs of *Gracilia* specimens in copulation and put them in special test tubes. After a close investigation of 74 pairs I found ♂♂ corresponding to the description of *Gracilia minuta* (F.) and ♀♀ corresponding, on the whole, to *Gracilia albanica* Csiki.

The shape of the scutellum was described as the main feature differentiating *Gr. minuta* (F.) and *Gr. albanica* Csiki. *Gracilia albanica* Csiki is described as having scutellum fully as long as broad. According to some authors *Gr. minuta* (F.) should have the scutellum 1.5-2 times longer than broad at the base; other authors report it to be 1.5-2 times longer than broad or only longer than broad. But there is a considerable difference when giving the breadth at the base or in general. So for instance, if "the scutellum is 1.5 times longer than broad at the base" the meaning is the same as "the scutellum fully as long as broad" (measured at the greatest breadth of the scutellum). It is probable that by omitting the precise term "at the base of the scutellum" the maximal breadth of the scutellum was taken and in this way the real dimension as well as the description of the new species were misinterpreted.

The difference in the shape of the scutellum, which was considered as the interspecific one, in reality concerns only ♂ and ♀ *Gracilia minuta* (F.). For this reason the following text gives only features of the sexual dimorphism of the above species.

The real differences of the sex do not quite fully agree in all cases with the differentiating features given in literature, for instance with those given by Tippmann (1948). ♂♂ have (figure 1) the breadth-length ratio 1.17–1.30, mostly 1.22–1.27. The maximal breadth is in the posterior half of the scutellum. In ♀♀ (figure 2) this ratio is 0.97–1.08, mostly 1.00–1.03. The maximal breadth is in the middle or immediately above it. The data were obtained by measuring always the broadest part of the scutellum of 40 specimens ♂♂ and 40 specimens ♀♀ selected at random. In ♀♀ the sides of the scutellum are not always regularly rounded (as in the figure 2), but have an irregular outline as it is also visible in figure 3. But this figure also shows the variability of the scutellum in ♂♂ and ♀♀. The variability of the shagreen – like surface of the scutellum is not a very clear feature for classification. Although the differences given in some specimens are present, in our case, however, we found ♂♂ and ♀♀ quite same. In either sex there is a whole series of the transitory forms with variously shagreen-like scutella. Also the denser grey-white hairs covering the elytra of the ♀♀ is not quite a stable feature. There are also ♂♂ with very dense pubescence covering and on the contrary ♀♀ with sparse hairs. I have found also specimens with more pronounced grey-white hairs on the scutellum. It is probable that these specimens are more or less abraded. The longitudinal rib on the elytra cannot represent a feature for the differentiation of the sexes. But there are also imagoes, though of different sex, but with identically formed rib, which is more or less clear.

The sexes can be differentiated according to: a) the form of scutellum – the ratio of the breadth to the length, b) according to the femora – in ♀ it is much slender than in ♂, c) size of the elytra – in ♂ the ratio of the length of the scutellum to the elytra is 2.38–2.78, in ♀ 3.00–3.25, d) according to the length 2.5–3.5 somites, extend beyond and the posterior part of the elytra of the ♂♂ in the ♀♀ 1–2 somites.

In *Gracilia minuta* (F.) the length of the antennae in ♂ is somewhat greater than the body and in ♀ it is somewhat shorter. It is necessary to mention that the antennae are longer than the body, if the hind part is not lacking.

The length of the body of ♂♂ ranged from 2.7 up 5.6 mm, ♀♀ from 2.9 to 6.5, measured from the head to the end of the elytra. When measuring the over-all length of the body of ♂♂ it amounted to 2.8 up to 6.4 mm and of ♀♀ from 3.3 up 8.1 mm.

To clarify the case it is necessary to explain the two types of larvae as given by Tippmann (1948). Tippmann found in the wicker baskets larvae with stunted legs. He wrote that they corresponded to the original description of *Gracilia minuta* (F.) (Schlöthe, 1876: 413).

But Waldmann might have found some larvae without legs and Tippmann supposed them to be those of *Gr. albanica* Csiki. This can be explained in the following way: that the in baskets (though it is not mentioned by Tippmann) there also were the larvae of *Nathrius brevipennis* (Muls.), which do not have legs (Heyrovský, 1955: 30). Both species often occur together in the same material. Though I have investigated a considerable number of larvae, all of them had legs and I could not find specimens without legs. Neither have I grown an imago of *Nathrius brevipennis* (Muls.).

The development probably two years because I found immature larvae at the time of swarm, all of about the same size. Though the swarm had begun,

these larvae continued to feed and underwent a complete metamorphosis first in the following year.

Damage caused by this beetle to the above mentioned locality is considerable. As far as I was able to investigate, all containers made of unbarked wicker work, several years old are attacked. Larvae make tunnels always under the bark (fig. 4) and at the end of the tunnel they penetrate into the wood to build a pupal chamber (fig. 4 — marked with arrow-head). If the boring lasts for some years the tunnels lying closely under the bark are connected into a single one and the thin layer of the bark collapses when touched. These tunnels, though they damage the wicker work, are not so dangerous as the pupal chambers in the wood. These chambers are the sites of considerable damage and especially when the wicker work is weak, the places where the chambers are, break.

When containers are more extensively attacked, the handles or bottom tear off, the bottle breaks and even more serious accidents may occur as a result of the content of the bottle.

Damaged wrappings, baskets etc. can be easily detected by the wood flower falling off, especially when the container has been standing in the same place for a longer time (fig. 5).

At such locality only those untacked containers remain intact in which insecticides, herbicides and similar chemicals have been transported and spilled over when pouring on the content.

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Author's address: M. Sláma, Výzkumný ústav lesního hospodářství a myslivosti, Zbraslav II. - Strnady, Czechoslovakia.

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Fig. 3. Sexual dimorphism appearing in the scutellum form; variability of scutella of the individual sexes.