

Chronological review of the taxonomy of *Cerambyx lamed* Linnaeus (Coleoptera, Cerambycidae) from 1758 to 1828

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Abstract. A brief review of significant taxonomic works of the past dealing with the taxonomy of *Cerambyx lamed* Linnaeus 1758, and history of imaging of this taxon in the early stages of systematic entomology (1746-1828). Westwood's 1838-40 designation of the type species of *Pachyta*, which is probably inaccurate, is reviewed.

Key words. Cerambycidae. Lepturinae. The genus name *Pachyta*. *Cerambyx lamed* Linnaeus, initial systematics, taxon depiction.

Introduction

Original names in descriptions of insect taxa are important from the point of view of systematic entomology, but are often not always correctly understood at present. It is not just a matter of whether we put the name of the author of the original description of the species in parentheses or not. The use of the original name of the taxon may have its justification in some contemporary works. Original names can tell us something about the possible complexity in the systematics of species in the same group of insects.

Original *Cerambyx lamed* Linnaeus to current *Pachyta lamed* (Linnaeus)



Fig. 1. Panzer's *Stenocorus lamed*

Linnaeus (1746) published a description: « ...LEPTURA nigra, elytris nigricante lividoque variis. De Geer (No. 498). ...» [type locality Roslagia]. This description was not correct from the ICZN point of view, so a valid description of *Cerambyx lamed* was published in *Systema Naturae* ed. X. Linnaeus' possible type material *Cerambyx lamed* (2 specimens) can be viewed on the Linnean Online website.

Fabricius (1775) described several new generic names and transferred the taxon *Cerambyx lamed* to the genus *Stenocorus*, which he described.

Panzer (1794) was probably the first author who, in addition to redescribing *Stenocorus lamed*, also illustrated this taxon in colour (see above Fig. 1).

Olivier's description and picture of *Stenocorus lamed* appeared only a year later.

Paykull (1800) was probably the first author to reassign *Cerambyx lamed* to the genus *Leptura* Linnaeus 1758.

Donovan (1806) again named and depicted the species *Leptura lamed* (flexuous-stripe *Leptura*).

Schönherr (1817) listed *Leptura lamed* (L.) (no. 46) near to *L. quadrimaculata* L. (no. 45), and correctly evaluated *Leptura octomaculata* Fabricius 1793 [non De Geer 1775, non Schaller 1783] as identical to *Leptura cerambyciformis* Schrank 1781

Dejean (1821), in the first official book version of the catalogue of Coleoptera of his collection, used the name *Pachyta* (which he received from Megerle von Mühlfeld), and among others, also for the taxon *lamed*.

Gyllenhal (1827) redescribed *Leptura Lamed*, did not recognize the generic name *Pachyta*, which appeared in Dejean's catalogue, because he considered this generic name only as a name in litt. (i.e., an unusable name for which a description with an explanation of the name *Pachyta* was missing).

Zetterstedt (1828) was the first author to describe *Pachyta* (he did not provide an explanation for the word *Pachyta*), listing it as a subgenus of the genus *Leptura* Linnaeus, however, he probably erroneously cited Dejean as the author of the name *Pachyta*.¹

What is the meaning of Linnaeus' original name *Cerambyx lamed*. In an Internet search engine, we enter the word *lamed*, which brings us to the idea of a certain drawing on the elytra of this beetle.²

¹ Dejean (1821) credited *Pachyta* to Megerle von Mühlfeld (see this credit also in Westwood 1838-40). In systematics, Dejean rather preferred Fabricius and Latreille (he forgot about Linnaeus), and in nomenclature he was an opponent of the principle of priority: "...I have made it a rule always to preserve the name most generally used, and not the oldest one; because it seems to me that general usage should always be followed and that it is harmful to change what has already been established..." Dejean acted accordingly and often introduced *in litteris* names, given by himself to replace those already published by other authors.

² Lamedh or lamed is the twelfth letter of the Semitic abjads. The letter is usually considered to have originated from the representation of an ox-goad, i.e. a cattle prod, or a shepherd's crook, i.e., a pastoral staff. In Proto-Semitic a goad was called lamed.

Although Linnaeus (1746) described the *lamed* as *Leptura*, in 1758 he reassigned it to the genus *Cerambyx* due to possible confusion with the taxon *Vulgo Leptura Lamed* (Uddm. dis. 35, t. 1, f. 2), an invalid Uddman's (1753) description that Linnaeus validated (according to ICZN rules) when he assigned the name *Leptura interrogationis* to Uddman's taxon.

If we combine the original names together, i.e. *Cerambyx lamed* Linnaeus 1758, and enter it into an Internet search engine, then the current valid name of this species appears: *Pachyta lamed* (Linnaeus). The genus *Pachyta* is listed in the literature as a Holarctic genus with 9-11 species (*P. perlata* Holzschuh, if a member of this genus, is more likely an Oriental representative, and *P. lamed* ssp. *liturata* Kirby is considered by some authors to be a valid species).

The path to the current genus name was complicated, and there are still some uncertainties regarding the author of the name *Pachyta*, but especially whether this name is being used correctly. The emphasis on the original name of the taxon, *Cerambyx lamed* Linnaeus, by the author of this article suggests that there is some confusion about the correct name of the genus in which the taxon *C. lamed* should be placed.

The current generic name *Pachyta* with *Leptura 4-maculata* Linnaeus as the type species used also as a genus name for *Cerambyx lamed* may not be entirely accurate, because Westwood 1838-40 (see appendix p. 41) established probably a different type species for the genus *Pachyta*: « ...PACHYTA Meg. LEPTURA p. Curt., 4 sp., *Lept. 8-maculata* Fab., Donovan. 353. Robust; thorax subconical, with a slight obtuse tubercle on each side; elytra short, nearly parallel; humeral angles not prominent. ...». Donovan [1806] on plate No. 353 (see citation «Don. 353» in Westwood) depicted (it is difficult to evaluate it from the drawing) *L. cerambyciformis* Schrank or *L. sexmaculata* Linnaeus, however, he marked the drawing as *Leptura sex-maculata*.³

Westwood 1838-40 established in the family 3. Lepturidae Leach a total of 6 type species in the genera Cerambycidae. ICZN 1956 determined Westwood's designation of these type species as valid. Westwood established type species [TS] for 6 genera: *Rhagium* Fab. (TS *Lept. inquisitor* Linn.); *Toxotus* Meg. (TS *Cer. meridianus* Linn.); *Strangalia* Serv. (TS *Lept. elongata* De G.); *Leptura* Linn. (TS *Lept. 4-fasciata* Linn.); *Grammoptera* Serv. (TS *Lept. praeusta* Fab.); *Pachyta* Meg. (TS *Lept. 8-maculata*

³ Fabricius (1793, p. 345) defined *Leptura octomaculata* (see No. 34) when he compared it to *L. quadrimaculata* (see No. 32 of the same page in Fabricius): "... *L. 4 maculata* ... statura omnino *L. 8 maculatae*, at duplo fere major ...), however, Fabricius mistakenly assigned to *L. octomaculata* the citations of Linnaeus' descriptions that correspond to the species *L. quadrimaculata* L., which was correctly evaluated by Schönherr in collaboration with Dalman (1817), who established *L. octomaculata* Fabr., as identical with *L. cerambyciformis* Schrank.

Fabricius (1793, p. 290) also described from Tranquebaria *Lamia octomaculata* (= *Batocera rubus* (L. 1758)). Schaller (1783) established *Leptura octomaculata* (which is now a synonym of *Pachytodes cerambyciformis* (Schrank 1781)), and De Geer (1775) described *Leptura octomaculata* (which is now a synonym of *Leptura 4-fasciata* (L. 1758)).

Schönherr's correct reasoning that Fabricius' description of *L. octomaculata* is a description of *Leptura cerambyciformis* Schrank could change the opinion on the designation of the type species of the genus *Pachyta*. In view of the above, it should be noted that the current type species for *Pachyta* is defined as *Leptura quadrimaculata* L., which is a species that does not occur in the British Isles, and therefore could not be designated as the type species of the genus living on these islands (see Westwood's Synopsis of the Genera of British Insects).

Fab.). Unfortunately, Catalogue of Palaearctic Coleoptera edited by Löbl and Smetana (2010), without stating who established the type species (and when), and also including Danilevsky and his web addenda only lists the type species of the genera, and does not mention the ICZN changes or recommendations published in the Bulletin of Zoological Nomenclature. If we want to search for changes to the type species thus established on the Internet, not all changes can be found. The current situation seems unclear. It would probably be appropriate to publish a comprehensive work that would explain in detail all of Westwood's determinations of type species, and to submit it to the ICZN for a new assessment of all the facts.

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