Brachypterolus linariae Cornelius, A Separate Species.

By

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Brachypterolus linariae is described in Stettiner Entom. Zeitung 1863, p. 115 by Cornelius, who distinguishes it from *B. pulicarius* L. by especially pointing out its somewhat smaller size, shorter and more scanty pubescence, which only slighty covers the black ground colour, and the black first joint of the antennae.

Reitter in Wiener Entom. Zeitung 1885, p. 315-316 seems to recognize this form (*,,linariae* Stephens-Cornelius") as a separate species and states as a synonym *laticollis* Küster (Die Käfer Europas, Bd. XV, 35, 1848). Everts, too, in Coleoptera Neerlandica I (1903), p. 472 considers the form (*linariae* Cornelius) as a separate species.

On the other hand Ganglbauer in Die Käfer von Mitteleuropa III 1899, p. 455-56, writes, that *B. linariae* Stephens, Cornelius (*laticollis* Küster) is "a smaller form" of *B. pulicarius* L. He states, that in *B. pulicarius* the first joint of the antennae is often blackish, but does not mention this as a characteristic for var. *linariae*. Ganglbauer is later followed by Reitter in Fauna Germanica III (1911), p. 14 and also by Everts, who in Coleoptera Neerlandica III (1922), p. 214 states *B. linariae* as a variety of *B. pulicarius*.

That the specific character of *B. linariae* has not been acknowledged is explainable, because most of the external characters are somewhat varying (the colour of the first joint of the antennae, however, is most probably never or only exceedingly seldom subject to variation). That *B. linariae* after all is a separate species appears, however, with full certainty from the fact, that the aedeagus presents decisive differences in its structure in *B. pulicarius* and *B. linariae*.

B. linariae Cornelius is exceedingly closely allied to B. pulicarius but is distinguished from the latter by being on an average slightly smaller, by having the brownish pubescence of the upper surface somewhat less conspicuous, the single hairs being somewhat finer (thinner) and somewhat shorter, by having the punctuation of the thorax and the elytra somewhat less dense and strong, causing the upper surface of the species to appear somewhat more shining and of a more deeply black colour, by having the anterior angles of the thorax slightly less protruding and by the black or brownish-black colour of the first joint of the antennae, the latter being in *B. pulicarius* not darker than the succeeding joints.



The aedeagus (above, the median lobe; below, the paramere) of Brachypterolus villiger, pulicarius and linariae.

Several of these characters are, as already mentioned, somewhat varying, so by the determination all of them ought to be compared. As regards the male the determination is easy by means of the aedeagus, which presents decisive differences from that of *B. pulicarius*. In *B. linariae* the paramere is shorter and broader and the branches of its bifurcated tip are shorter and stronger convergent, and the right, strongest chitinized, side of the median lobe is much stronger dilated towards apex, and the apex itself is more obliquely rounded (vide the drawing).

The colour of the legs and the shape of the posterior angles of the thorax is too strongly varying in both species to be available for the discrimination of the species. From *B. villiger* Reitter *B. linariae* may still easier be distinguished than *B. pulicarius*, it having a more scanty brownish pubescence, consisting of thinner and shorter hairs; this pubescence is only slightly conspicuous and does not conceal the black ground colour, whereas in *B. villiger* the pubescence gives the upper surface a pronounced whitish-grey or yellowish-grey tinge. The aedeagus of *B. villiger* (vide the drawing) only differs very little from that of *B. pulicarius*, but presents decisive differences from that of *B. linariae*.

The species above described ought to he named *B. linariae* Cornelius, as *B. linariae* Steph. (Illustrations of British Entomology III (1830) p. 53) and *B. laticollis* Küster are both described as having unicoloured bright antennae.

In Denmark *B. linariae* occurs together with *B. pulicarius* in the flowers of *Linaria vulgaris*, especially in July.