

Notes on the Genus *Elater* (*Ampedus*).

By

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In the latest catalogue of Mess^{rs} Heyden, Reitter and Weise, the number of species of the North European red *Elaters* has been considerably reduced, and consequently the number of synonyms increased; the reason for this is caused undoubtedly by the exceedingly poor descriptions of the original authors, and also in many cases, by authors describing new species without first having compared their specimens with the then existing types.

Having a great interest in this genus and also having had the opportunity of seeing and comparing the original type specimens of a great many of the species, I venture to put my observations and the results of my work before the Entomological Public, with a view of rectifying some of the mistakes that occur in the British and General European catalogues.

Schiödte in his work on the Danish species, worked on the principle of ignoring all previous descriptions and redescribing and naming the species, which would have been a great benefit to all Coleopterists had it been universally adopted; this, however, was rendered more or less impossible by the fact that his extensive descriptions (with the exception of the short diagnosis in Latin) were written in Danish, thus handicapping the entire work. I have no doubt in my own mind, that had these descriptions been written in English, French or German, his species would have been more fully recognized. His original type specimens, however, together with some of the Fabrician are preserved in the Zoological Museum here in Copenhagen, and having been given access to them through the courtesy of Dr. Meinert, I have been able to make a practical résumé of these beetles,

and append herewith a list. with synonyms as they must at present stand.

The original types are in the Zoological Museum, Copenhagen of those species marked thus *.

1. *E. dibaphus*, Schiö. *.
2. *E. sanguineus*, L. (*coccineus*, Schiö. *).
3. *E. lythropterus*, Germ. (*sanguineus*, Schiö. *).
4. *E. cardinalis*, Schiö. * (*coccinatus*, Rye).
5. *E. praeustus*, Fabr. *.
6. *E. sanguinolentus*, Sch. v. *ephippium*, Ol.
7. *E. pomonae*, Steph.
8. *E. crocatus*, Castelm.
9. *E. pomorum*, Hbst. (*elongatulus*, Schiö. Fortegnelse).
10. *E. elongatulus*, Fabr.
11. *E. balteatus*, L.
12. *E. elegantulus*, Germ.

E. dibaphus, Schiödte, which has been considered by Heyden, Reitter and Weise to be a variety of *E. pomonae*, Steph. must be retained as distinct and forming a separate group or subgenus with two South European species *E. quadrisignatus*, Schön. and *E. satrapa* Kiesw. on account of the third joint of the antennae being triangular and similar in shape to the fourth (fig 1 on page 73), whilst all the remaining species have the third joint narrow and elongate (fig. 2).

E. cardinalis, Schiödte (*coccinatus*, Rye). Schiödte's name for my father's species must be given priority (Schiödte 1865, Rye 1867). In the catalogue of Heyden, Reitter and Weise this species is given as synonymous or varietal with *E. praeustus*, Fabr., but is easily distinguished from that species and from all the other red *Elaters* by the parallel-sided and very closely and thickly punctured thorax (fig. 3). The species lives exclusively in old Oaks, whilst the two allied live in Beech and Fir. The species is not uncommon in some parts of Denmark chiefly in Sjælland, and the two Southern Islands, Lolland and Falster. Besides England, it has also been recorded from France.

E. lythropterus, Germ. Of this species I have collected a large number of specimens in old Beech and Fir stumps from various localities here in Denmark and find that occasionally the species has entirely black hair, for which I propose the varietal name of *atro-pilosus*. This variety closely resembles *E. sanguineus*, L. and *E. dibaphus*, Schö. but can easily be separated from the former by the absence of the central channel on the thorax and from the latter by the narrow elongate third joint of the antennae.

E. praeustus, Fabr. This species closely resembles small forms of *E. pomorum*, Hbst. and average sized forms of *E. pomonae*, Steph.; from the former it may be distinguished by the colour of the elytra which are red and dull, whilst in *E. pomorum* the colour is always brownish and shiny, caused by the much finer and less close punctuation and from the latter it may be distinguished by the duller and darker coloration of the elytra, more dense punctuation and the stronger black marking at the apex, in which respect it somewhat resembles *E. elongatulus*, Fabr., but cannot be confounded with that species on account of its larger and broader proportions and the fact that *E. elongatulus* is always yellow brown.

In most of the works that give tables for naming the species of the genus *Elater*, one of the chief characters for distinction is given in the coloration of the hair on the thorax and elytra. From personal observations I find this a very unreliable one (vide remarks on *E. lythropterus*) as the species have a great tendency to vary in that respect. I have before me four specimens of *E. cardinalis* from the neighbourhood of Copenhagen, in which three are normally black haired whilst the fourth has bright golden hair on the elytra.
