

# REMARKS ON THE SYNONYMY OF SOME NORTH AMERICAN SCOLYTID BEETLES.

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(Translated and annotated by E. A. Schwarz.)

DURING the year 1892, Professor C. V. Riley entered into correspondence with William Eichhoff, of Strasburg, Germany, the well-known authority on Scolytida, with a view of getting this rather difficult family of Coleoptera properly identified for the U. S. National Museum collection. The correspondence resulted in exchange of specimens, and a series of our North American species was sent to Mr. Eichhoff by the Museum, care being taken to select such species as, upon comparison, with the types, would throw light on the confusion in synonymy between the North American species described by Chapuis and Eichhoff on the one hand and Zimmermann and Le Conte on the other. Some time before his death, Mr. Eichhoff sent an exchange series, partly composed of exotic species, which form a valuable addition to the Museum collection, and partly of North American species, mostly of his own types. The correspondence included very full synonymical remarks on many species, and these Professor Riley deemed of sufficient importance to justify publication. I have, therefore, at his special request, translated the substance of Dr. Eichhoff's determinations and comments, and added in brackets some notes of my own.—E. A. S.

## HYLASTES RUFIPES, Eichhoff.

*Hylastes pinifer*, Fitch, and *H. rufipes*, Eichhoff, while both of them belong to the genus *Hylurgops*, Le Conte, are specifically quite distinct, differing more especially in the form of the antennal club. Quite characteristic is the form of the epistoma in *H. rufipes*, and your *Hylesinus opaculus*, as figured in the Annual Report of the Commissioner of Agriculture for the year 1878<sup>1</sup> and is probably referable to *Hylastes rufipes*. Quite recently I have received from Mr. A. D. Hopkins two specimens of a Scolytid which have the same formation of the epistoma and which no doubt belong also to *Hylastes rufipes*. Finally, I would suggest

<sup>1</sup> Plate v, fig. 3 a.

that the three species *Hylesinus opaculus*, *sericeus*, and *trifolii* are more properly placed in *Hylastes* or *Hylurgops* than in *Hylesinus*.

[A typical specimen of *Hylastes rufipes* sent by Eichhoff proves to be identical with *Hylesinus opaculus*, Le Conte, the former name having priority.]

#### HYLURGUS SUBCOSTULATUS, Mannerheim.

*Hylurgus subcostulatus*, Mannerheim, is undoubtedly synonymous with *Hylastes alternans*, Chapuis, the former name being the older one.

#### HYLASTES PORCULUS, Erichson, and others.

When Erichson, in 1836,<sup>1</sup> established the new hylesinid genus *Hylastes*, he described, in connection with a large number of European species, but a single species from North America under the name of *H. porculus*, the typical specimen having been sent him by Zimmermann, from Pennsylvania. More than half a century has now elapsed, but the North American and European entomologists have not yet agreed about Erichson's species. It has been asserted by Le Conte that *Hylurgus scabripennis*, Zimmermann (described in 1868), is "certainly" identical with *porculus*, Erichson, but I have to dissent from this opinion for the following reasons:

Erichson says in his description: "Thorax dense ruditerque punctatus; elytra linearia, dorso subdepressa, punctis grossis striata, interstitiis angustis, granulato-rugosis, interioribus elevatis, carinatis, sutura vero depressa." Not one of these characters is to be seen in *H. scabripennis*, but just the opposite: Disk of elytra strongly convex, fine punctures at the bottom of the narrow elytral striae, coarsely transversely-rugose interstices, which are wider than in the allied species. *H. cavernosus*, Zimmermann, on the contrary, agrees word for word with Erichson's description of *H. porculus*—densely and coarsely punctate thorax, narrow elytra with coarsely punctate striae and narrow granulated punctate interstices. The first stria near the suture is much wider and more deeply excavated than the following, and this causes the disk of the elytra to be perceptibly deplanated, with the suture depressed and the following interstices somewhat carinately-convex. It appears to be beyond question that *H. porculus*, Erichson, is identical with *H. cavernosus*, Zimmermann, but not with *H. scabripennis*, Zimmermann.

*H. granosus*, Chapuis, is also identical with *H. porculus*, Erichson—a fact ascertained by me from the three specimens in my collection, which are the types of Chapuis. One of these I herewith send you.

Further, *H. salebrosus*, Eichhoff,<sup>2</sup> is unquestionably identical with *H. scabripennis*, Zimmermann, the former name having priority.

Finally, *H. scobinosus*, Eichhoff, is very closely allied to *H. salebrosus*. However, the form of the thorax, with its nearly straight sides which

<sup>1</sup> Wiegmann's Archiv, I, p. 49.

<sup>2</sup> Berl. Ent. Zeitschr., 1868, p. 146.

gradually narrow from base to apex, is so characteristic that this difference can be perceived even with the naked eye. I have only two specimens of *H. scobinosus*, but I send you one of them. If you succeed in collecting more specimens, you will be able to ascertain whether we have to deal here with a good species or merely with a variety.

The synonymy of the species here discussed is as follows:

1. *Hylastes porculus*, Erichson (1836) = *carbonarius*, Fitch (1851) = *carcerosus*, Zimmermann (1868) = *granosus*, Chapuis (1869).

2. *Hylastes salebrosus*, Eichhoff (spring of 1868) = *scabripennis*, Zimmermann (fall of 1868).

3. *Hylastes scobinosus*, Eichhoff (1868).

[After a careful study of Erichson's description of *H. porculus*, I have come to the conclusion that Eichhoff's proposed synonymy will have to be adopted; Zimmermann probably never saw Erichson's description, and Dr. Le Conte misinterpreted it. Fitch's description of *H. carbonarius* is altogether too indefinite to permit any identification, but since *H. porculus* is the common species in the Northeastern States and *H. salebrosus* more southern in its distribution, the probability is that Fitch's species is *H. porculus*. Of *H. scobinosus* I only saw the single type specimen sent by Eichhoff to Professor Riley, and can only say that it represents a species distinct from *H. salebrosus*.]

#### DENDROSINUS GLOBOSUS, Eichhoff.

Of this species I received about twenty-five years ago two specimens from Dr. G. Kraatz, labeled "North America." Whether or not the locality is correct I am unable to say. I have never seen other specimens, but Chapuis must have received it also from South America. One of my specimens is herewith sent you.

[This is such a remarkable and easily recognizable insect that if it really belonged to our fauna it would have been rediscovered long ago. Dr. Le Conté was quite right in rejecting it from our lists.]

#### Genus HYLESINUS, Fabricius.

From the specimens of *H. aculeatus*, Say, sent me by you, I have fully convinced myself that Chapuis erroneously considered and described as *H. aculeatus* specimens of *H. imperialis*, which I had submitted to him. These are undoubtedly two quite different species. But at the same time I have been confirmed in my old supposition that *H. pruinosus*, Eichhoff, of which I possess only a single specimen, constitutes a third North American species with variegated color of the upper side. Finally, I have in my collection a specimen said to be from North America which I am unable to separate from the European *H. fraxini*.

[*H. aculeatus* is quite variable in the coloration of the upper side, and it is by no means apparent upon what reasons Mr. Eichhoff considers his *H. pruinosus* as distinct from *H. aculeatus*. *H. fraxini* is readily distinguished from *H. aculeatus* or *H. imperialis*, but I have never seen specimens from North America.]

## Genus PHLÆOSINUS, Chapuis.

*Phlaosinus graniger*, Chapuis, is undoubtedly identical with *dentatus* of Say, whose name has priority. But *P. haagii*, Eichhoff, seems to be unknown to American entomologists unless it be the female of *P. punctatus*. One of my two typical specimens of *P. haagii* is herewith sent to you.

## Genus PHLÆOTRIBUS, Latreille.

That *P. granicollis* is identical with *P. frontalis*, Olivier, has already been recorded, but the Texan specimens of the latter you sent me are much smaller than my *P. granicollis*, of which I send you two specimens. My *P. setulosus* and *dubius*, however, are quite distinct from *P. frontalis*; the first-named species has on the first antennal joint a brush of hairs, as in the genus *Thysanoes*.

[The Texan specimens of *P. frontalis* were collected under bark of *Celtis* and are possibly specifically distinct from our Eastern specimens which infest *Morus*. The brush of hair on the first antennal joint has no specific value, but is merely a sexual character.]

## Genera STEPHANODERES, Eichhoff, and HYPOTHENEMUS, Westwood.

I concede that a large majority, if not all, of the species described by me as *Stephanoderes* are congeneric with *Hypothenemus eruditus*, Westwood, as already intimated by me,<sup>1</sup> where I speak of *S. areceæ*, Hornung, as a probable synonym of *Hypothenemus eruditus*. But the question is whether Westwood's genus as originally described<sup>2</sup> can be considered as a valid one. Westwood gives as the *only* generic character the three-jointed antennal funicle; but this is erroneous, for I believe I have convinced myself that in *H. eruditus* the funicle is five-jointed. I consider, therefore, Westwood's name *Hypothenemus* as quite untenable, because founded upon a character that does not exist, and the name *Stephanoderes* has to take its place.

The North American specimens sent me by yourself as *H. eruditus* do not agree in many characters with Westwood's and Erichson's descriptions of this species, and I am inclined to consider your species as identical with *Stephanoderes erudivæ*, which was well described and figured as *Bostrychus erudivæ* by Panzer in 1791, from specimens found in some West Indian seed.

Of *Stephanoderes rotundicollis*, Eichhoff, I possess only a single specimen: *S. chapuisi*, Eichhoff (1871), is identical with *S. dissimilis*, Zimmermann (1868); and *St. sculpturatus*, Eichhoff (1879), is identical with the species you sent me as *H. erectus*, Le Conte.

<sup>1</sup> Ratio Ac. Tom., pp. 165, 166.

<sup>2</sup> Trans. Ent. Soc., London, I, p. 34.

## Genus PITYOPHTHORUS, Eichhoff.

Of the species sent by you, *P. pullus*, Zimmermann, is synonymous with *P. cribripennis*, Eichhoff; *P. hirticeps*, Le Conte, is extremely close to and perhaps identical with *P. pulchellus*, Eichhoff; *P. concentralis* from Florida is correctly determined and does not differ in the least from my typical specimen from Cuba; *P. querciperda*, Schwarz, is identical with my *P. pruinus*.

[Typical specimens of *Pityophthorus infans*, Eichhoff, prove to be identical with *P. puberulus*, Le Conte.]

## Genus PITYOGENES, Bedel.

*Tomicus sparsus*, Le Conte, *T. plagiatas*, Le Conte, and *T. carinulatus*, Le Conte, as well as their European allies, *T. bidentatus* and *T. chalcographus*, belong to Bedel's recently established genus *Pityogenes*. My statement<sup>1</sup> that *T. chalcographus* occurs also in North America is erroneous, since a renewed examination shows that the specimen is a female of *T. sparsus*, Le Conte, which has a most deceptive resemblance to *T. chalcographus*. *T. plagiatas*, Le Conte, is a good species and not identical with *bidentatus*, Herbst, as erroneously indicated by me.<sup>2</sup>

[To *Pityogenes* also belongs *Pityophthorus fossifrons*, Le Conte, which is evidently the female of a species, the male of which has hooked processes at the elytral declivity. From specimens recently submitted to me by Prof. A. D. Hopkins, I find that *Xyleborus punctipennis*, Le Conte, is also referable to *Pityogenes*, and that *Tomicus balsameus*, Le Conte, is the male of the same species.]

## Genus XYLEBORUS, Eichhoff.

There can not be the slightest doubt that the species you sent me as *Xyleborus xylographus*, Say, and of which I had previously seen undetermined North American specimens, is identical with the European *X. sareseni*, Ratzeburg. It is certainly remarkable that this synonymy comes to light only now, and that Ratzeburg's name has to be suppressed after it had been in use for more than fifty years. *X. pini*, Eichhoff, considered by Le Conte as synonymous with *X. xylographus*, must now again take its rank as a distinct species. What *X. pubescens*, Zimmermann, is, remains for the present unknown to me, since among the specimens which you send me as such I believe I can distinguish three species, viz, *X. affinis*, Eichhoff, *X. inermis*, Eichhoff, and a third one. These species of *Xyleborus* are extremely difficult to distinguish in the female sex, and I have no doubt that in this particular group still other species will be distinguished as soon as the males are discovered. These are wingless and can only be found within the galleries during the winter or in midsummer; very rarely also they may be seen near

<sup>1</sup>Die Europ. Borkenkäfer, p. 23.

<sup>2</sup>Ratio Tom., p. 280.

the entrance of the galleries, but only shortly before the females are swarming.

[Say's original description of *Bostrichus xylographus* is very clear but greatly vitiated by the paragraph describing the galleries; for it is evident that a Scolytid excavating "immediately beneath the bark, on the wood, a rectilinear groove, with short, equal, lateral grooves at right angles with the preceding," can not be referred to any species of *Xyleborus*. This discrepancy can, however, be explained: The Scolytids described by Say<sup>1</sup> were sent to him by the younger Rev. J. F. Melsheimer from the old Melsheimer collection with the manuscript names<sup>2</sup> and notes by the elder Rev. F. V. Melsheimer. Among them were *Bostrichus xylographus*<sup>3</sup> and another species (No. 155), *B. xanthographus*. A description of the latter was either drawn up by Say or at least intended by him; but, at any rate, in Say's published paper the description itself is omitted and the paragraph referring to the gallery of *B. xanthographus* (which evidently is a species of *Pityophthorus*) became attached to the description of *B. xylographus*. Dr. E. F. Melsheimer was aware of this confusion and attempted to straighten it out<sup>4</sup> by quoting *Tomicus xanthographus* as a species distinct from *T. xylographus*. He also added, in his own copy of the old Melsheimer catalogue, the following manuscript note to *B. xanthographus*: "Differs from *xylographus* Say in having the posterior declivity slightly truncated, and in being somewhat less."]

[The following is a summary of the synonymy discussed in these notes:

*Hylastes rufipes*, EICHHOFF = *Hylesinus opaculus*, LE CONTE.

*Hylastes porculus*, ERICHSON = *cavernosus*, ZIMMERMANN, LE CONTE = *granosus*, CHAPMAN.

*Hylastes salebrosus*, EICHHOFF = *scabripennis*, ZIMMERMANN, LE CONTE.

*Hylastes scobinosus*, EICHHOFF, is to be added to our list.

*Phlaosinus dentatus*, SAY = *graniger*, CHAPUIS = *haugii*, EICHHOFF.

*Hypothenemus erudis*, PANZER = *hispidulus*, LE CONTE.

*Hypothenemus dissimilis*, ZIMMERMANN = *chapuisii*, EICHHOFF.

*Hypothenemus erectus*, LE CONTE = *sculpturatus*, EICHHOFF.

*Pityophthorus cribripennis*, EICHHOFF = *pullus*, ZIMMERMANN.

*Pityophthorus pruinosus*, EICHHOFF = *querciperda*, SCHWARZ.

*Pityophthorus pulchellus*, EICHHOFF probably = *hirticeps*, LE CONTE.

*Pityophthorus puberulus*, LE CONTE = *infans*, EICHHOFF.

*Xyleborus xylographus*, SAY = *saxeni*, RATZBURG.

*Xyleborus punctipennis*, LE CONTE, is the female of *Tomicus balsamcus*, LE CONTE, and belongs to the genus *Pityogenes*.]

<sup>1</sup> Jour. Acad. Nat. Sci. Phila., 1826, V, pp. 317-319.

<sup>2</sup> Catalogue of Insects of Pennsylvania, 1806.

<sup>3</sup> No. 148 of the Catalogue.

<sup>4</sup> Catalogue of the Coleoptera of the United States, p. 87, 1853.