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## NOTES ON NORTH AMERICAN NAIDES. I

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## I

Frierson has shown that the original type named by Lea for his genus *Symphynota* was *Unio alatus* Say and that consequently *Symphynota* becomes a synonym of *Proptera* Raf. and that *Lasmigona* Raf. as the earliest available name becomes the generic type.

Another consequence is that the group included by Simpson in the subgenus *Symphynota* is left without a name unless *Lymnadea* Sw. (*Treat. Mal.*, 1840, p. 379) is available. But I do not think that it can be used. Swainson listed three species under his new genus:—*L. alata* Sw. (*U. alatus* Say), *L. fragilis* Sw. (*U. gracilis* Bar.) and “?*L. compressa* Lea.” In his text where he discusses the systematic position of *Lymnadea* (l. c. p. 265) he figures *alata* as the representative of the genus and in citing *compressa* on p. 379 prefixes it with an “?” showing that he was not certain that it really belonged to the genus.

The International Code (Art. 30-e) expressly provides that in designating a type "species which the author of the genus doubtfully referred to it" are excluded.

For these reasons I am of the opinion that the evident intention of the author will be best carried out and the provisions of the Code obeyed by considering *alata* as the generic type and, to save any possible question hereafter, I hereby designate *Lymnadea alata* Sw. (*U. alatus* Say) as the type of *Lymnadea* Sw.

To take the place of the unavailable *Symphynota* Lea as a name for the subgenus, I propose to substitute *Platynaia*s with *Symphynota compressa* Lea as the type. The arrangement proposed by Ortmann (Naut. XXVIII, 1914, p. 42) will still hold good, but should be reversed as follows:

Genus *Lasmigona* Raf.

Subgenera *Lasmigona* s. s.

*Pterosygna* Raf.

*Alasminota* Ort.

*Platynaia*s Walk.

## II

In 1840 Simpson in his Treatise on Malacology, p. 382, described a new genus of his subfamily *Alasmodontinae* as *Calceola* and gave as the monotype, "*C. angulata* Sw. Am. Tr. 1827, pl. 3 f. 1." Both the genus and species seem to have been overlooked by both Lea and Simpson in the preparation of their respective synopses.

Swainson never actually described a species as *Calceola angulata*, but his reference is evidently to the Trans. Amer. Phil. Soc. for that year and the species figured on pl. 3, f. 1 is the *Unio calceolus* Lea. It would seem that his generic name was adapted from the specific name used by Lea. Swainson

simply followed the common custom of his time which permitted the author of a new genus to rename all the species of earlier authors that he included in his new group.

It follows that *Calceola* Sw. is exactly the same group as that subsequently described by Simpson as *Pressodonta* and has priority over it.

### III

In 1793 Spengler, who was a leading Swedish conchologist of that time, described in the *Skrivter af Naturhistorie-Selkskabet*, III, p. 55, a supposed new species of *Unio* from "North America" as *Unio violaceus* in the following words:

*"Testa crassa, oblonga, antice hinc angulose flexa, interne violacea."*

This description described nothing and might apply to any one of a very considerable number of North American species. But Lea in his *Synopsis* referred it to *Unio complanatus* and in this was doubtfully followed by Simpson.

In 1913, Haas (*Kobenhavn Nath. Medd.* 65, pp. 51-66) published a paper on Spengler's *Unios* and figured the type of his *Unio violaceus*, from which it would appear to be an abnormal specimen of the well known *Unio complanatus*. The question is whether Spengler's name, his type having in 1913 for the first time been adequately described and figured, should be given preference over the definite description of Dillwyn in 1817.

The conditions of a valid specific description are explicitly defined by the Code and have been further construed by Opinion I of the International Committee, in which it is held that the "indication" required by the rule does not include museum specimens. Dr. Pilsbry has aptly stated the proper construction of the requirements of the Code in another connection (*Pr. A. N. S. P.*, 1915, p. 549) and substantially as

follows: the use of such a name depends upon whether it could be identified by descriptions published prior to any other recognizable name for the same species. That it can be recognized from the type or other specimens of the author does not entitle his name to acceptance unless the published description is adequate.

It would seem clear from this that *Unio violaceus* Speng. must be considered to date from 1913 and not from 1793 and that consequently it is a synonym of *U. complanatus* Dill.

#### IV

Hemilastena was proposed as a generic term by Agassiz in 1852, and the type is expressly stated to be *Unio dehiscens* Say ("earlier well described as *Hemilastena lata* by Rafinesque"), for this reason and not because Hemistena Raf., 1820, is a contraction of Hemilastena, which is entirely immaterial as the two names are quite different, it is clearly a synonym of Lastena Raf. as stated by Frierson (Naut., XXVII, 1914, p. 8), and the genus of which *Alasmodonta ambigua* Say is the type will consequently be known as Simpsoniconcha Frierson.

#### V

In 1831 Rafinesque, in the Continuation of his Monograph, p. 3, described a new species of *Unio* from the Cumberland River as follows:

"*Unio rimosus*, (*Eurynia rimosus*, 1823). Shell elliptic, thick, thinner, broader and rimose behind; surface olivaceous nearly smooth, inside bluish white. Length  $\frac{2}{3}$ , diameter  $\frac{1}{6}$ , axis  $\frac{1}{4}$  of length.

"In the Cumberland river, rare, small  $1\frac{1}{2}$  inch. Resembling some Amblemas, but evidently transversal, cardinal tooth crenulate, lamellar smooth, short, nearly horizontal, but

a little curved towards the back. Perhaps a peculiar *S. G.* near to *Epioplasma*, it might be called *Lemiox*."

This species was first identified with the well known *Unio calatus* Con. by Frierson (Naut. XXVIII, 1914, p. 7), and the identification has been accepted by Ortmann (Naut. XXX, 1916, p. 39) who considers the species (*calatus*) worthy of generic rank on account of its unique surface sculpture and certain anatomical peculiarities.

The validity of the use of *Lemiox* as the name for this genus depends upon the certainty of the identification of *rimosus* with *calatus*. This approximation rests wholly upon Rafinesque's use of the word, "rimose" as a descriptive term, as aside from this the species would be wholly unidentifiable. According to the Century Dictionary rimose means "chinky, like the bark of a tree" and in entomology the surface sculpture of insects showing "many minute, narrow and generally parallel excavations." While at first blush it must be admitted that this seems quite an apt description of the peculiar surface sculpture of *calatus*, it is not exactly correct and the remaining characters given by Rafinesque for his species do not at all apply. He says that the shell of his species is nearly smooth, that it is broader and rimose behind, and that it is one and one-half inches long, the altitude being  $\frac{2}{3}$  and the diameter  $\frac{1}{6}$  of the length. None of these are true of *calatus*, the corrugations are not minute, but are very heavy and coarse, they are not confined to the posterior portion, but cover three-fourths of the entire shell, which is not wider behind, and the diameter of a specimen of *calatus* of the length given by Rafinesque is nearly one-half instead of one-sixth of the length.

Rafinesque's description would apply much better to *Meditionidus conradicus* Lea than it does to *calatus* Con. The

description of the lateral tooth also agrees better with that of *conradicus*.

In short the perennial question as to the adequacy of Rafinesque's descriptions again appears.

If the identification of *rimosus* with *calatus* is revised or the description of *rimosus* rejected wholly, as it should be, for indefiniteness, a new name will have to be found for the genus typified by *calatus* Con. and characterized by Ortmann.



