

in the smaller *Gastrodontas*, although I have never seen more than one tooth on the same radius. But, as said, in some they are in the form of radial bars, and when two or three are present they are always of the same character, either round or transverse. Two examples, mature or nearly so, but weathered and opaque, have at least one distinct round deposit each, about $\frac{1}{2}$ volution above the aperture. In the specimens from the valley, about a dozen in number, varying from young to large, and by the way a few of them with very high spire, there is not a trace of teeth to be seen.

This is certainly a very interesting fact, and the character described could mean a different species, and for the *Nouvelle Ecole* would be sufficient to establish a new genus. But as the shell is, in all other regards, formed like that of typical *C. fulvus*, we have to regard it as a variety of that species, the more so since in the lot there are a few examples without teeth and differing in no way from the type. This, and the variation in number, shape and size, show it to be a newly acquired character, which some time may be that of a distinct species.

It remains to know whether the form be found also in other places of our country—which is quite probable—and to ascertain also the nature of the localities where it lives. Another question is whether it also inhabits the Old Continent.

It may be mentioned here also that there are two different forms of the common *C. fulvus*, one more pale horn, the other deep wine or amber colored, and there are also differences in surface sculpture. It would be of interest to know how far these forms are constant and in correspondence with the nature of their habitats. I have seen them in both Europe and North America.

New Philadelphia, O., March 21, '93.

POLYGYRA SUBPALLIATA, N. SP.

BY H. A. PILSBRY.

Some time ago the writer received from Prof. A. G. Wetherby, a suite of the land-snails found at his home, "Roandale Farm," Magnetic City, North Carolina; and with them a letter giving the collector's impressions and conclusions in regard to some, and queries

respecting other forms. A number of "*Zonites*" were included, among them specimens of *Z. carolinensis* Ckll., and of two new species, one of about the same size as *suppressus*, the other larger. Of these an account will be given later. Among the Helices, one of the most interesting forms was labelled "*H. wetherbyi* Bld. var. *Don't believe it!*" Upon glancing at the specimens I was compelled to join Wetherby in his scepticism, for the shells are certainly unlike *H. wetherbyi*, and belong to quite a different group of species. The first notice of these so-called *wetherbyi* appeared in a paper written by Mr. Wetherby on the shells of Roan Mountain, and published in the Journal of the Cincinnati Society of Natural History, vol. iv, as long ago as 1881. The paragraph is as follows:

"*Mesodon wetherbyi* Bland.—Shells which have been referred to this species occur somewhat sparingly at this locality. Like the specimens from the original station, the shells are covered with a thick coating of dirt, imbedded in the hirsute covering of the epidermis, which being carefully washed away leaves the shell of a pale greenish white color. These shells have a lamellar projection on the inferior surface of the peristome much like that of some varieties of *T. appressa*, and which is a character very distinct from that of the same region in the type. A very careful examination of the genitalia shows them to be much more like those of *Triodopsis*. Indeed, looking over the whole field, it seems not improbable that here we have another case of the union of characters of *Mesodon* with other groups, like that of *Stenotrema*, mentioned in my notes, No. 1. Mr. Binney says, *Terr. Moll.*, vol. v, p. 301, "*Triodopsis* does not differ from *Mesodon* or *Polygyra* in the character of its jaw." Again, p. 306, he says that the genitalia of *T. appressa*, resemble, in certain features, those of *Mesodon sayii*=*M. diodonta*. This shell certainly presents as many features that would ally it to *Triodopsis* through *appressa*, as to *Mesodon* through *dentifera*. In fact, I am inclined to the belief that the shell is not *Mesodon wetherbyi* at all, but a distinct species, probably a *Triodopsis*, and having the closest analogy to *M. dentifera* Binney, which certainly has some very strong claims to relationship to *Triodopsis* through *T. appressa*. The station of this species is always in the dirt under and beside rotting logs. It is very sluggish and timid, and very rare."

It will be seen that Wetherby recognized the Triodopsoid affinities of the snail; but in the writer's opinion it is more nearly allied

to the *palliata* than the *appressa*. The species may be diagnosed as follows:

Polygyra (Triodopsis) subpalliata n. sp. Shell depressed, thin, pale green or buff-green, somewhat translucent. Surface shining, minutely roughened by narrow granules elongated in the direction of growth-lines. Spire convex, composed of slightly over 5 convex whorls, the last rounded at the periphery, deflexed in front, and very deeply constricted behind the lip. Aperture oblique; outer lip flatly reflexed, white, wide, the arcuate basal lip bearing a long plate-like callus, as in *H. palliata*; parietal wall bearing a large, high, curved tooth, like that of *H. palliata*. Alt. $9\frac{1}{2}$, diam. 15 mill. (largest specimen). Alt. 7, diam. 13 mill. (smallest specimen).

DALL'S TERTIARY MOLLUSKS OF FLORIDA.¹

This second volume of Dr. W. H. Dall's great work upon the Tertiary Mollusks of Florida is much wider in scope than the previous part, including much matter upon other East American faunas of the same epoch, notably the Pliocene of the Carolinas. The introductory chapter graphically describes the series of changes of shore line and elevation of our southeast coast, from the close of the Eocene to the present time; and this has been noticed and quoted from in a previous number of the NAUTILUS.

The systematic enumeration and description of species occupies the greater portion of the work, the subject being completed down to the Pelecypods, which will form the third part of the work.

The new genera and subgenera proposed are as follows: *Glyptostyla* (type *G. panamensis* Dall), a peculiar form like *Pyrula* outside but ponderous and with the plaits of *Latirus*. *Trachyodon*, new subgenus of *Chiton* for *C. eocenensis* Conr.

The generic synonymy of *Vivipara* is worked out in full, the author concluding that *Vivipara* (Martini) Lamarck, has priority over the very bad masculine form, *Viviparus* Montf., which has lately been adopted by English authorities. Incidentally the history of the name *Bulimus* is discussed, and shown to be totally inapplicable to the genus of land snails generally known by that name. *Clava*, of Martyn, is used as a generic name to supercede

¹Transactions of the Wagner Free Institute of Science of Philadelphia, vol. 3, pt. ii. Issued January, 1893.