

New remains of Oligocene fossil mammals collected by Professor Scalabrini and belonging to the
Provincial Museum of the city of Paraná.

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[pp. 100-102 only]

[p. 100]

Tapiroidea

Ribodon limbatus, Amegh.

I founded this genus in my first note about the mammal fossils of the Paraná, using a single upper molar of very particular characteristics which didn't seem to me the results of anomaly in the development of the molar. Introducing to me rather as the well defined characteristics of the teeth of an animal yet unknown. When I received the second collection of mammal remains from the same deposits, it surprised me not to see a single tooth that had the same characteristics as what I had observed in what I designated with the name *Ribodon*, and doubts came to me whether perhaps I had not been mistaken in the determination of the above-mentioned molar, and whether it had not actually been nothing more than an anomaly.

But in the collection that I now have on hand, there are three new upper molars, definitely of inseparable differences. Since they were found isolated, they presented exactly the same

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characteristics like the first one I had occasion to examine. Thus the genus *Ribodon* is duly established.

I have little to add to the general forms of these molars, since they correspond totally to that which served as the basis of my first description.

Each molar is composed of two transverse hills that when used by mastication produced the two transverse figures of which I talked in the description of the previous example. That which was called to my attention in the last example, was the prompt damage by the use of enamel on the top of the hills and the rapid disintegration of the underlying dentine in order to form the two profound pits that were substituted with the age of the two transverse hills. I attributed this wearing away to the lack of a quick deposition of cement to substitute for enamel. In this profound wearing away of the dentine, which I considered as one of the principle characteristics of the molars of the until then unknown *Ribodon*, and as I have just repeated, those that I have on hand, present the same wearing away with the only difference being the pits, the most profound pits were covered by a very delicate blanket of cement that was beginning to deposit in a very advanced age in order to impede the complete wearing away of the teeth. The three present molars, as the first one I had on hand, had a crown that ended in perpendicular anterior and posterior surfaces in perfect planes, perfectly polished, in some of which the enamel had disappeared, thus confirming my first deduction that the teeth of this animal must have been very tightly fitted against each other. In the first molar there was nothing left but the crown, so for that I cannot say anything about the roots. In two of the present ones there was nothing left but the crown either, but in the third there were the bases of two broken roots, and a third almost complete. This permitted me to recognize that it was closed at the base. Given the identical conformation that is presented in the crown, it is given to suppose that each one of these molars was furnished with three roots closed at the base, and some 18 to 20 mm

in length. [p. 101] These roots were located one in each of the anteroexternal and posteroexternal angles, arranged in effect anteriorly and posteriorly, and the third root was located on the inside part of the molars, arranged probably in transverse effect. Here are the dimensions of the three molars:*

2nd or 3rd upper on the right side:

diameter	anteroposterior	0.018	transverse	0.019
height of the crown	internal part	0.0065	external part	0.085

fifth upper on the left side:

diameter	anteroposterior	0.018	transverse	0.022
height of the crown	lateral part	0.006	external part	0.008

sixth upper on the left side:

diameter	posterointernal	0.020	transverse	0.021
height of the crown	internal part	0.007	external part	0.085

It is seen by the preceding measurements, and those that I gave from the first known piece, that the molars of *Ribodon* were with little difference and almost the same size, but always with a larger transverse diameter than anteroposterior diameter. There is, therefore, in this new collection a molar, the last of the interior jaw, with a special similar conformation, but which corresponds to the type of the described upper molars, by which I suppose it pertains equally to *Ribodon*. This molar has two flattened, long roots seated anteroposteriorly; and the crown is formed by two transverse hills covered with enamel, established in each of them by two smooth mounds with their internal base towards the top, but a strong similarly transverse callus posterior, and appears also to be composed by two smooth mounds, forming a third transverse posterior hill smaller than the two front ones. Presenting in diminutive the same form as a molar of mastodon, although not attacked

* The scale here is presumed to be meters [MTC/MU].

by mastication, whose crown was made up of three pairs of smooth hills in its internal part. It is to suppose that at one time this molar had begun to wear away, because use had begun to lower the height of the hills and had formed in them transverse figures more or less similar to those presented in the upper molars. On its anterior part the enamel of the crown presented a flattened and very smooth facet where doubtlessly it was supporting the penultimate molar, which permits us to deduce that the lower molars were just like the upper molars, in that they pressed very tightly against each other. As to the relation of the hills to the roots, the anterior hill formed by the pair of anterior mounds corresponds to the first root or anterior one, the middle hill formed by the second pair of mounds corresponds to the posterior root, and the posterior callus or smallest hill seems to be a supplementary part that is united at its base to the posterior part of the second hill. [p. 102] The two roots are long and divergent in form of a hairpin. The posterior root, the only whole one, is 13 mm wide, 7 mm thick in the middle, and 30 mm in length. The base of the root is open, forming a cavity that is subdivided in two, corresponding to two primitively distinct roots, as if leaving it to look like an internal longitudinal double depression that divides the root in two parts or primitive roots, corresponding to two teeth in a separate source. The crown is 24 mm in anteroposterior diameter, 16 mm in transverse diameter, 14 mm high at the anterior hill, and 10 mm high at the posterior hill. As to the affinities of the animal, as you see, the molars of the *Ribodon* present multiple characteristics, some particular to this genus, others more or less similar to those observed in very distinct orders. The upper molars present something similar to those of *Dinotherium* and over all of the tapir, consequently with those of the distinct fossil genera of Europe and North America allied to the genus *Tapirus*. The last lower molar that I have described, if it were not for the size, could be confused with that of the mastodon or a hippopotamus, or even with that of some

other suines, or manatees, and I do not want to look for more because I am afraid of finding similar characteristics in other still distinct genera.

Nevertheless, it seems to me that the greatest affinities and the most important ones are those that unite *Ribodon* to the tapirs. The form of the two roots of the lower molar, located in transverse effect and flattened in anteroposterior effect, are only found in the tapir. The number of roots in the upper molars is also the same as in that genus, and they are placed in the same mode.

The squared shape of these same molars, the two transverse hills that they form, a small callus or tubercle accessory that they have in the anteroexternal angle, and another rudimentary in the posteroexternal angle, are characteristics that are found in all the genera of the family of tapirs now known, and they oblige to locate *Ribodon* in the same.

The principle difference between the upper molars of *Ribodon* and those of tapirs appears to be in the mode of wearing away of the transverse hills, which are worn away by a slight separation without actually touching in *Ribodon*, while in tapirs they firmly touch on the external side. But without a doubt this depends on the disposition of the hills. In *Ribodon* the two transverse hills of the upper molars are completely separated in all their length, and likewise or even more on their external side than in their internal side, as in the last lower molars of the genus *Tapirus*. In the remaining genera of the same family the two hills of the upper molars are, on the contrary, united on the external side of the molars by a longitudinal crest that, upon being attacked by mastication, pressed against the two figures with which the wearing away formed on the top of the hills. So *Ribodon* seems to be between the animals of the tapir family, the genus most particular and divergent that until now has been encountered.