

# THE NAMES *MESOTHERIUM* AND *TYPOTHERIUM*.

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ABSTRACT. The name *Typotherium* Bravard was first printed in 1857, but was then a *nomen nudum* and publication is doubtful. The genus under this name was defined in 1858, but still doubtful as to publication and a *genus coelebs*, including no defined species. It was surely published and defined by Gervais, *ex* Bravard, in 1859, still as a *genus coelebs*, and was published with a valid specific name by Gervais in 1867. The name *Mesotherium* Serres, for the same genus was defined and published in 1857 as a *genus coelebs* and in 1867 (earlier than Gervais, 1867) with a defined and designated type species. If a *genus coelebs* be accepted as valid, *Mesotherium* Serres, 1857, is the valid name, antedating *Typotherium* Bravard, 1858, or Gervais *ex* Bravard, 1859. If a *genus coelebs* be refused validity, *Mesotherium* Serres, 1867, is the valid name, antedating *Typotherium* Gervais (*ex* Bravard?), 1867. In any case the valid name of this well-known genus is *Mesotherium*, not *Typotherium* as hitherto assumed.

THE purpose of this note is to trace the obscure history of two generic names for South American fossil mammals, *Mesotherium* and *Typotherium*. Its conclusion is that the two are strictly synonymous and that the former is valid, the latter, although greatly more familiar, invalid.

The name *Typotherium* first appeared in a paper by Bravard in 1857.<sup>1</sup> This was printed separately as a pamphlet by a newspaper and there is some room for doubt as to whether it was technically published. Aside from the year no date is given or known, as far as I can learn. It gives *Typotherium* in a list of names (p. 17) with the three species *T. protum*, *T. medium* and *T. minutum*, in that order. There is no description or indication of any sort as to what specimens or animals are referred to, and all these names are there strictly *nomina nuda*.<sup>2</sup>

<sup>1</sup> Bravard, A.: "Observaciones geológicas sobre diferentes terrenos de transporte de la hoya del Plata." Biblioteca del diario La Prensa, Buenos Aires, 1857.

I am indebted to Dr. A. T. Hopwood for examining the British Museum copy of this extremely rare publication and giving me all the pertinent information and quotations from it.

<sup>2</sup> Bravard (in 1858, cited below), as well as Ameghino and others dated *Typotherium* from 1856, referring to a "Memoria sobre la geología de las pampas presentada en 1856 a la Sociedad de Historia Natural de Buenos Aires." This "memoria" was never published and does not enter into the question.

Also in 1857, but whether before or after the issue of Bravard's paper seems impossible to learn now, Serres<sup>3</sup> named and characterized "un genre nouveau, que nous proposons de nommer *Mesothérium* (designé provisoirement par M. Bravard sous le nom de *Typotherium*)." No specific name was given and *Mesotherium* was a *genus coelebs* at that date.

In 1858 Bravard again mentioned *Typotherium* in a doubtful publication.<sup>4</sup> In this (p. 107; p. 94 of Burmeister's reprint) Bravard spoke of "los *Typotherium*, extraño cuadrúpedo terrestre con dientes de roedor, piés de tapir, y uñas bifurcadas." This is a definition, poor as it is. The genus is *coelebs* here. It obviously would include the three species listed the year before, but these had never been defined.

In 1859 (p. 367) Gervais<sup>5</sup> briefly discussed "le *Typotherium* de M. Bravard" in a way acceptable as a definition, although not formally such, but without any specific name or diagnosis. Gervais there noted the synonymy of *Typotherium* and *Mesotherium*.

In 1860 Bravard<sup>6</sup> again used the names *Typotherium protum*, *medium*, and *minutum* in a list without any characterization. This work was lithographed by Bravard himself and privately issued, not published.

In 1862 Gervais<sup>7</sup> again noted the synonymy of *Typotherium* and *Mesotherium*, characterized the genus, and quoted Bra-

<sup>3</sup> Serres, M. de: "Note sur une collection d'ossements fossiles recueillis par M. Séguin dans l'Amerique du Sud." C. R. Ac. Sci., XLIV, pp. 954-962, 1857.

Serres's work might be supposed later, because he mentions the name *Typotherium*, but this does not follow. Serres was certainly acquainted with Bravard's studies and knew the name before it was printed.

<sup>4</sup> Bravard, A.: "Monografía de los terrenos marinos terciarios de las cercanías del Paraná." The British Museum copy (kindly examined for me by Doctor Hopwood) bears the data "Imprenta del Registro Oficial, Paraná, 1858." Burmeister reprinted this paper in 1883 (or later), An. Mus. Nac. Buenos Aires, III, pp. 45-94, and cited it as from "El Nacional Argentino," an official government newspaper not available in trade. Burmeister also says that Bravard distributed a few privately printed copies to friends—the British Museum copy is evidently one of these. Neither edition was published in any technical sense of the word, since neither was in trade or generally available.

<sup>5</sup> Gervais, P.: "Zoologie et paléontologie françaises." 2nd. éd. Arthus Bertrand, Paris, 1859.

<sup>6</sup> Bravard, A.: "Catalogue des espèces d'animaux fossiles recueillis dans l'Amerique du Sud." Paraná, 1860.

<sup>7</sup> Gervais, P.: "Additions aux recherches sur les mamifères fossiles de l'Amerique méridionale." Mém. Sect. Sci. Acad. Sci. Lettres Montpellier, V, pp. 325-332, 1862.

vard's list of species (still uncharacterized) from the catalogue of 1860.

In 1867 Serres<sup>8</sup> published seven short monographs on the genus. In the second of these (p. 142) he named *Mesotherium cristatum* and designated it as genotype. The description then appearing (even leaving out the following five monographs) was entirely adequate to validate both generic and specific names. In the fifth monograph, Serres made this curious statement: "Si donc nous avons cru devoir désigné ce nouveau genre de fossile d'après le système dentaire, nous aurions pu le nommer *Uptiodon* (dents renversées) . . . j'ai substitué au mot absolu de *Typtotherium*, qui isolait cet animal de toute la création des temps passés et présents, celui de *Mesotherium*, qui le ramène vers les conditions actuelles de la vie des Mammifères."

Also in 1867 but after the valid publication of *Mesotherium cristatum* Serres, Gervais<sup>9</sup> published another quotation of much of Bravard's catalogue of 1860, with its names *Typtotherium protum*, *medium* and *minutum*, and also a good illustrated description of the genus. In his own text Gervais used no specific names and made no attempt to distinguish Bravard's three supposed species. Gervais's figures (Planche XXIII) are labeled *Typtotherium cristatum*, combining Bravard's generic with Serres's specific name.

By 1867, at least, both generic names were thus definitely established in nomenclature, so that later references have no direct bearing on this question. In summary, the chronology of these names is as follows:

*Typtotherium* Bravard, 1856. Manuscript name with no standing.  
*Typtotherium* Bravard, 1857. *Nomen nudum*. Publication doubtful.  
*Mesotherium* Serres, 1857. Defined and published, but including no defined species and hence a *genus coelebs*. Equated with *Typtotherium*.

<sup>8</sup> Serres, M. de.: "De l'ostéographie du *Mesotherium* et de ses affinités zoologiques." C. R. Ac. Sci., LXV, pp. 6-17, 140-148, 273-278, 429-437, 593-599, 740-748, 841-848, 1867.

<sup>9</sup> Gervais, P.: "Zoologie et paléontologie générales." Paris, 1867.

Serres's second monograph was presented at the *séance* of July 22 and promptly published in the *compte rendu* of that meeting. The first five *livraisons* of Gervais's book were presented to the Académie on Nov. 18 and notice of the beginning of its publication appeared simultaneously with Serres's last monograph. Gervais's publication was therefore later.

- Typosotherium* Bravard, 1858. Defined, publication doubtful, a *genus coelebs*.
- "*Typosotherium* Bravard" Gervais, 1859. Defined and published, but still a *genus coelebs*.
- Typosotherium* Bravard, 1860. Printed but not published, not here defined.
- "*Typosotherium* Bravard" Gervais, 1862. Defined and published, still a *genus coelebs*.
- Mesotherium* Serres, 1867. Defined and published with a specific name and designated type, the species not equated with any of Bravard's specific *nomina nuda*.
- Uptiodon* Serres, 1867. Rejected alternative name for *Mesotherium*, antedated by the latter.
- "*Typosotherium* Bravard" Gervais, 1867 (later than Serres, 1867). Defined and published with Serres's valid specific name and with Bravard's three specific names, still *nomina nuda*.

From these facts, my opinion is that *Mesotherium* enters nomenclature as of Serres, 1867, type by original designation and monotypy *M. cristatum* Serres, 1867. *Typosotherium* enters nomenclature as of Gervais, 1867, type by monotypy *Mesotherium cristatum* Serres, and is antedated by *Mesotherium*.<sup>10</sup> *Mesotherium* Serres is therefore the valid name of this genus. The only possible loop-hole in the argument seems to be that Serres did equate *Mesotherium* with *Typosotherium*, but he can hardly be claimed to have validated the latter name since he explicitly rejected it and since he defined the genus definitely as *Mesotherium*. In Serres, who gave the first definitions of the genus and of a species of it, *Typosotherium* is merely a rejected alternative name with no more standing than had the later "*Uptiodon*."

The names "Typosotheria" for a suborder or other subdivision of notoungulates and "typosother" in the vernacular for any member of this large group are not affected by the invalidity of *Typosotherium*. On the contrary, they become more useful, since no longer subject to any confusion with the genus.

<sup>10</sup> There is some difference of opinion as to the status of a *genus coelebs*, but this makes no difference to the main conclusion since *Mesotherium* Serres, 1857, would still antedate *Typosotherium* Bravard, 1858, or Gervais, 1859. Of course *nomina nuda* cannot be recognized, so by the most generous estimate *Typosotherium* cannot be earlier than 1858.