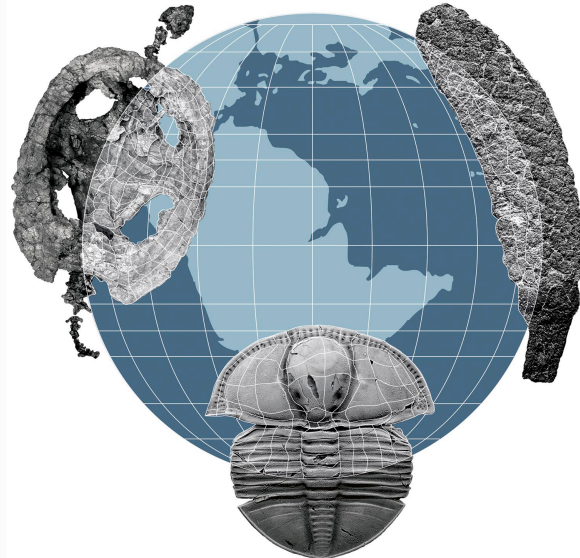




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1 **HOMALODOTHERIIDAE AND *HOMALODOTHERIUM*: COMMENTS ON AN**  
2 **OLD NOMENCLATURAL CONFLICT**

3

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23 Keywords: *Homalodotherium*. Homalodotheriidae. Notoungulata. Nomenclature.

24

25           Thomas H. Huxley (1870) mentioned as *Homalodotherium* some fossils sent to  
26 him by Dr. Robert O. Cunningham, and sent these remains to William H. Flower to be  
27 described. Flower presented at the same time at the Royal Society of London (reception  
28 May 30, and presentation June 19, 1873) a short abstract (Flower, 1873) and a full  
29 description (Flower, 1874), which were, however, published with different date, being  
30 the abstract previous to the complete work. This fact gave place to subsequent  
31 nomenclatural changes because the author used a different generic name in the paper  
32 published in 1874, *Homalodontotherium* instead of *Homalodotherium*. Besides,  
33 Flower's complete work is often referred to 1873 due to the date of presentation, but it  
34 was published in 1874. The abstract included a general comparison of the fossil, and the  
35 taxonomic name *Homalodotherium cunninghami* appears in the title.

36           Gervais and Ameghino (1880) considered both the genus *Homalodontotherium*  
37 and the species *H. cunninghami* authored by Flower (1874). Later, Ameghino (1889)  
38 created the family Homalodontotheridae and signaled Huxley (1870) as the author of  
39 the genus *Homalodontotherium* (including *Homalodotherium* [sic] as synonymous  
40 surely due to a *lapsus calami*), without justifying this change of author.

41           Zittel (1893) mentioned these same authors for the genus and species, and  
42 Ameghino (without year) as the author of the family Homalodontotheridae. The same  
43 year, Lydekker (1894) did the same, though he corrected the family name spelling,  
44 adding a second i, Homalodontotheriidae, and made a mistake when writing the year of  
45 Flower's publication (1884 instead of 1874).

46           In 1904, Ameghino used the spelling *Homalodotherium* for the genus, but he  
47 continued naming the family Homalodontotheriidae, with two i, following Lydekker  
48 (1894), without comments or explanations.

49           The same year, Scott (1905a) used the rank Homalodontotheria, changing it to  
50 Homalodotheria shortly after (Scott, 1905b, but presented August 18, 1904); the former  
51 spelling was used by Loomis (1914) and the latter by Gregory (1910).

52           In 1906, Ameghino used the name Homalotheriidae [*sic*] consistently,  
53 considered as a mistake by Scott (1912). At the beginning of his work, Ameghino  
54 clarified that whenever is read *Homalotherium* it should say *Homalodotherium*, but he  
55 did not clarify anything about Homalotheriidae. In turn, Gregory (1910) used the family  
56 name Homalodotheriidae (without author), maybe based on the generic name changed  
57 by Ameghino (1904).

58           Scott (1912, 1913, 1930) used again the genus name *Homalodontotherium* and  
59 the family name Homalodontotheriidae as Lydekker (1894) did.

60           Simpson (1934: 16, footnote), advised by Patterson, stated the priority of the  
61 name *Homalodotherium* by Flower (1873) considering *Homalodotherium* Huxley, 1870  
62 as a *nomen nudum*, and posteriorly, Patterson (1934: 1, footnote) made the same  
63 clarification. Additionally, Simpson (1934) used the family name Homalodotheriidae  
64 but he assigned the authorship to Ameghino (1889). Later, Simpson (1945) stated the  
65 family name as Homalodotheriidae Gregory, 1910 (Homalodontotheridae Ameghino,  
66 1889). Therefore, he recognized that Gregory (1910) made the change in the spelling,  
67 but the authorship of the family was Ameghino (1889). McKenna and Bell (1997)  
68 followed this classification.

69           Mones (1986) also listed the family Homalodotheriidae Gregory, 1910;  
70 considered *Homalodontotherium* Flower, 1874, as an ‘*emend. illegit. pro*  
71 *Homalodotherium*’ and *Homalodotherium* Huxley, 1870, as a *nomen nudum*, but  
72 validated by Flower (1873) as Simpson and Patterson had previously noted.

73 Both names Homalodotheriidae and *Homalodotherium* have been used in recent  
74 papers with different authoring (e.g., Elissamburu, 2010, 2012; Seoane and Cerdeño,  
75 2014; Hernández Del Pino *et al.*, in press).

## 76 ***Conclusions***

77 *Homalodotherium* Huxley, 1870 is not an available name, according to the  
78 requirements of the ICZN (1999: arts. 11, 12.1 and 12.2.5). Therefore,  
79 *Homalodotherium* Huxley, 1870, is a *nomen nudum* as previously indicated (Scott,  
80 1912; Simpson, 1934; Mones, 1986).

81 As noted by Simpson (1934), Patterson (1934), and Mones (1986), the abstract  
82 published by Flower (1873) gives availability to the name *Homalodotherium*  
83 *cunninghami*, even when the description is too vague and ambiguous. Therefore, the  
84 generic name *Homalodontotherium*, published with the full description in 1874, must be  
85 interpreted as a junior synonym of *Homalodotherium*.

86 Ameghino (1889) is, without question, the author of the family name, as he was  
87 the first in establishing a suprageneric taxon, but he misspelled the name following  
88 Flower's work (1874). Later the family name spelling was corrected —  
89 Homalodotheriidae— by Gregory (1910). This spelling was used by Simpson (1934)  
90 and Patterson (1934) and several authors in the subsequent years. Simpson (1945)  
91 proposed Gregory (1910) as the author of the family Homalodotheriidae, but here we  
92 have to distinguish between who created the family concept as a suprageneric taxon and  
93 the one that emended the correct spelling, according to the ICZN 1999, art. 32.2.2 and  
94 specially art. 32.5.3.2. There is no doubt that Ameghino (1889) established the family as  
95 a new taxon and Gregory (1910) made the justified emendation of the name according  
96 the original spelling of the genus name by Flower 1873. Accordingly this, and in order

97 to give Gregory credit for his nomenclatural act, we propose that from now on the  
98 correct names and authors are:

99 Homalodotheriidae (Ameghino, 1889) Gregory, 1910, *emend.*

100 Homalodontotheriidae Ameghino, 1889:523, 551.

101 Homalodotheriidae (Ameghino, 1889) Gregory, 1910:376, 466, *emend.*

102 *Homalodotherium* Flower, 1873.

103 *Homalodotherium* Huxley, 1870:lvii, *nomen nudum, genus coelebs.*

104 *Homalodotherium* Flower, 1873:383.

105 *Homalodontotherium* Flower, 1874:173, *emend.*

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