

1988), Perrin et al. (1976; 1979; 1985, pp. 4, 21, 23), Rice (1977, pp. 8, 13) and others. Substitution of any of the synonyms *velox*, *pseudodelphis* or *brevimanus* for *attenuatus* would upset long-standing nomenclatural stability for this well-known pantropical species and cause considerable confusion in the zoological literature, in legal and institutional documentation, and in the legislative language relating to conservation and management of the species.

6. The name *Delphinus capensis* Gray, 1828 (p. 2) was based on a dolphin skin from the Cape of Good Hope in the British Museum (Natural History). Subsequently, Gray (1865, p. 522) proposed the name *Steno capensis* for a dolphin skull in the South African Museum, Cape Town which was later presented to the British Museum (Natural History). The two specific names *capensis* were proposed for species included in different genera (*Delphinus* Linnaeus, 1758 and *Steno* Gray, 1846) and are still regarded as distinct today. *Delphinus capensis* Gray, 1828 is presently treated as a junior synonym of *Delphinus delphis* Linnaeus, 1758 (Hershkovitz, 1966, p. 43). True (1889, p. 62), Hershkovitz (1966, p. 33) and Perrin (1987, p. 150) listed *S. capensis* Gray, 1865 as a junior subjective synonym of *attenuatus*. There is thus no doubt that *Delphinus capensis* Gray, 1828 is not a senior subjective synonym or secondary homonym of *Steno capensis* Gray, 1865.

7. The name *Prodelphinus* was proposed by Gervais (in Van Beneden & Gervais, 1880, p. 604) for a genus distinct from *Delphinus* by the absence of deep palatine lateral grooves. True (1889, pp. 61–62) included 23 species in the genus, including *attenuatus*. Subsequently, Oliver (1922, p. 582) adopted *Stenella*, a name proposed by Gray (1866b, p. 213) for the single species *Steno attenuatus*, as a name senior to *Prodelphinus*. *Stenella* was poorly defined and was not listed by Simpson (1945) but under Article 12(b)(5) of the Code is an available name. Following its use by Iredale & Troughton (1934, p. 65), Fraser (1950), Fraser & Purves (1960), and others it has been universally accepted (see, for example, Corbet & Hill (1986, p. 123)). *Steno* Gray, 1846 is now confined to a single species, *Steno bredanensis* Lesson, 1828 (a replacement name for *Delphinus rostratus* Desmarest, 1817 which was preoccupied), the rough-toothed dolphin with a wide distribution in tropical and warm temperate seas (Hershkovitz, 1966, p. 15).

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to suppress the following specific names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
 - (a) *velox* G. Cuvier, 1829, as published in the binomen *Delphinus velox*;
 - (b) *pseudodelphis* Schlegel, 1841, as published in the binomen *Delphinus pseudodelphis*;
 - (c) *brevimanus* Wagner, 1846, as published in the binomen *Delphinus brevimanus*;
- (2) to place on the Official List of Generic Names in Zoology the name *Stenella* Gray, 1866 (gender: feminine), type species by monotypy *Steno attenuatus* Gray, 1846;
- (3) to place on the Official List of Specific Names in Zoology the name *attenuatus* Gray, 1846, as published in the binomen *Steno attenuatus* (specific name of the type species of *Stenella* Gray, 1866);

(4) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the following names:

- (a) *velox* G. Cuvier, 1829, as published in the binomen *Delphinus velox* and as suppressed in (1)(a) above;
- (b) *pseudodelphis* Schlegel, 1841, as published in the binomen *Delphinus pseudodelphis* and as suppressed in (1)(b) above;
- (c) *brevimanus* Wagner, 1846, as published in the binomen *Delphinus brevimanus* and as suppressed in (1)(c) above.

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Case 2726

***Mammuthus* Brookes, 1828 (Mammalia, Proboscidea): proposed conservation, and *Elephas primigenius* Blumenbach, 1799 (currently *Mammuthus primigenius*): proposed designation as the type species of *Mammuthus*, and designation of a neotype**

W.E. Garutt

Zoological Institute, U.S.S.R. Academy of Sciences, 1, University Embankment, Leningrad 199034, U.S.S.R.

Anthea Gentry

Secretariat, International Commission on Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.

A.M. Lister

Department of Zoology, University of Cambridge, Downing Street, Cambridge CB2 3EJ, U.K.

Abstract. The purpose of this application is to conserve the generic name *Mammuthus* Brookes, 1828, and to designate *Elephas primigenius* Blumenbach, 1799 as the type species, in accordance with existing usage. *M. primigenius*, the woolly mammoth, is known from Pleistocene deposits in Europe, Asia and northern North America. A neotype for *primigenius* is designated.

1. Two specific names for the woolly mammoth were proposed in 1799: Blumenbach (p. 697) proposed the name *Elephas primigenius*, while G. Cuvier (p. 21) proposed *E. mammonsteus*. Blumenbach's work appeared a few months earlier and *primigenius* was the name adopted by subsequent authors. Maglio (1973, p. 60) in his revisionary work on the ELEPHANTIDAE suggested that Blumenbach did not validly publish the specific name in 1799 (presumably because *primigenius* was written with an interrogation mark) and that the name became available from the 1803 French translation of Blumenbach's work (p. 407, where the name was cited without the interrogation mark). Kurtén & Anderson (1980, p. 353) and earlier authors (Falconer, 1868, p. 158; Lydekker, 1886, p. 175; Trouessart, 1897, p. 711; Hay, 1902, p. 713) have also cited *primigenius* with the date 1803. If this date for *primigenius* were [incorrectly] adopted Cuvier's name *E. mammonsteus* would have priority. However, all subsequent authors, including Cuvier himself (1806, p. 264), have accepted Blumenbach's name *primigenius* as the valid name for the species.

2. Blumenbach did not list any specimens on which the name was established and which could have been used to designate a lectotype. He stated that bones were often

found in Germany and referred to a skeleton found near Burgtonna in 1695 as an example of his new species. This specimen was later recognised (Osborn, 1942, pp. 1118, 1122; Maglio, 1973, p. 40) to be of the straight-tusked elephant, *Elephas antiquus* Falconer & Cautley, 1845. The Burgtonna skeleton is not to be regarded as a holotype since *E. primigenius* was not based on it alone and was composite according to modern taxonomy.

3. The collection in the Zoological Institute of Göttingen University included teeth of the woolly mammoth from Blumenbach's personal collection which he might have used in establishing the name *E. primigenius*, and in 1942, acting on advice from W. O. Dietrich, Osborn (p. 1122) selected from among them two teeth as 'lectotypes'. These were an incomplete last lower molar from Siberia and a last upper milk premolar from Osterode (Harz) in Germany. In 1965, Gromova (p. 38) proposed that one of the teeth, that from Siberia, should be the lectotype.

4. We turn now to the question of the generic name. Blumenbach included the generic name *Mammut* in his work (1799, p. 698), with the specific name *ohioticum*, but this refers to the North American mastodon (Simpson, 1945, pp. 133, 247). The earliest use of the generic name *Mammuthus* appears to have been that by Brookes in a sales catalogue (1828, pp. 73, 74) which has been approved as available for zoological nomenclature by the Commission (Opinion 1080, July 1977), followed by Burnett (1830, p. 352). Neither author gave a diagnosis or description of the genus. They both included two species and used very nearly the same words: 'Genus *Mammuthus*, species *borealis*, *meridionalis*. Fossil mammoth'. In both works the name *borealis* was cited without authorship or description but Brookes attributed the second species, *meridionalis*, to '(Nesti)' and *Elephas meridionalis* Nesti, 1825 (p. 211) was thereby fixed as the type species of *Mammuthus* by monotypy; its citation makes *Mammuthus* available (Article 12b(5) of the Code). Pohlig (1888, p. 138) later designated *Elephas meridionalis* the type species of his new genus *Archidiskodon*. (The nominal taxon *meridionalis* was subsequently recognised as composite, one of the three syntype skulls described by Nesti (1825, p. 213, skull 'B', cat. no. Igf 1067 in the Florence University Museum) being *E. antiquus* (Weithofer, 1890, p. 137). Depéret & Mayet (1923, pp. 126, 128, figs. 16a, 16b) selected Nesti's skull 'C' (1825, p. 213, pl. 1, figs. 1 and 2, no. Igf 1054) as the lectotype of *meridionalis*; see Azzaroli, 1977, p. 156 for details). *Archidiskodon* is a junior objective synonym of *Mammuthus* Brookes, 1828; it was treated as a distinct genus by Osborn (1942, pp. 935, 947) and Azzaroli (1977, p. 151) but was synonymised with *Mammuthus* by Aguirre (1968–69), Maglio (1973, p. 51), and Coppens et al. in Maglio & Cooke (1978, p. 357).

5. In 1935 Hopwood (p. 11) adopted the name *Mammuthus* 'because it appears to be the first genus to have *Elephas primigenius* specified as the type species'. As noted above, *primigenius* had not been mentioned in *Mammuthus*, but Hopwood (p. 98) accepted the synonymy '1799 *Elephas primigenius* Blumenbach; 1830 *Mammuthus borealis* Burnett' and wrote that 'by so doing I have attempted to make the Rules [Code] a useful servant, rather than to allow them to become a blind, unreasoning, master'. Hopwood was supported by Colbert (1937, in litt. to Osborn (1942, p. 1367)). Because of uncertainty about the availability of the name *Mammuthus*, Osborn (1924, p. 2; 1942, pp. 1117, 1126) adopted *Mammonteus* Camper, 1788 but, as Simpson (1945, p. 249) pointed out, '*Mammonteus* was reconstructed by Osborn from 'Mammonteum' in a Latin work by Camper, but it is perfectly clear that Camper used this only in the

vernacular and neither intended nor inadvertently created a real generic name. It is also doubtful whether Camper's 'mammonteum' would be available for a mammoth (and not mastodon) even if it were a generic name'. *Mammonteus* was regarded as only doubtfully available by Osborn himself (1924, p. 2; 1942, p. 1177), and Mabel Rice Percy, editing material for the 1942 volume after Osborn's death, wrote (p. 1363) 'it is possible that Professor Osborn would have abandoned it in the final version of the present volume and adopted *Mammuthus* Burnett, 1830'.

6. After Hopwood, Scott (1937, pp. 67, 274–276, 278) adopted the generic name *Mammuthus* and other workers followed, usually attributing the name to Burnett (1830) although Brookes (1828) is the earlier author. The name *Mammuthus* was adopted by the following, among others: Simpson, 1945, p. 134; Carrington, 1962, pp. 129–131; Maglio, 1973, p. 50; Coppens et al. in Maglio & Cooke, 1978, pp. 357, 358; Kurtén & Anderson, 1980, pp. 353–354; Dubrovo, 1982; Stuart, 1982, pp. 44–48; Beden, 1985, pp. 28–31; Foronova in Kahlke, 1986, pp. 35, 36, 38; and Tassy & Shoshani in Benton, 1988, pp. 292, 293, 295. When the type species is mentioned the name *Elephas primigenius* is that which is cited (Osborn, 1942, p. 1141; Maglio, 1973, p. 50; Azzaroli, 1977, p. 151; Coppens et al. in Maglio & Cooke, 1978, p. 357). It is desirable to maintain stability in the nomenclature of this important and interesting species and the Commission is therefore asked to ratify existing usage, and to interpret the specific name *primigenius* by the skeleton designated as the neotype (see para. 8 below). In so doing the generic name *Archidiskodon* Pohlig, 1888, with the type species *Elephas meridionalis* Nesti, 1825, will also be conserved; the name has had recent usage (Stuart, 1982, pp. 44–48; Foronova in Kahlke, 1986, pp. 29–42). The genus *Mammuthus* now includes between seven and ten species, according to different authors, including *primigenius* (Maglio, 1973; Madden, 1981).

7. Since the Second World War Blumenbach's original specimens of *E. primigenius* have disappeared and are probably destroyed (Prof Dr H. D. Kahlke, pers. comm.; see also Comment on p. 51). Osborn (1942, p. 1123) stated that casts of the two teeth designated as 'lectotypes' by him (see para. 3 above) were in the American Museum of Natural History (the lower molar from Siberia, AMNH no. 26980 and fourth upper deciduous premolar, no. 26981) and figured the casts (p. 1123, fig. 993). However, neither specimen would be useful for study purposes since the molar which was cast was incomplete and had an eroded occlusal surface, while the premolar was hardly worn and shows little of the occlusal pattern. There are no duplicate casts in the collections of the Natural History Museum, London (Alan Gentry, pers. comm.). It is not known what became of the specimens of '*Mammuthus borealis*' from the Brookean Museum after the sale of the collections in 1828; 13 specimens of parts of tusk, teeth, limb bones and fur were listed in the sales catalogue (1828, pp. 73 and 74) but it is likely that they have all been destroyed. A copy of the prospectus of the Brookean Museum (Brookes, 1827), given by Brookes to J. E. Gray, carries a note by Gray: 'This collection was offered to the British Museum Feb. 1827 for 10.00£ subject to the reference of two competent persons relation to its value. J. E. Gray'. There is no record of purchase of mammoth specimens by the Natural History Museum, London, from Brookes's collection (Lydekker, 1886; Woodward, 1904). However, a catalogue of specimens in the collections of the Royal College of Surgeons (1844, p. 466) contains the entry '*Elephas primigenius*. 2374. Portion of a tusk. O.C.F. 631. Locality unrecorded. Brookes's collection. Purchased, 1828' and records (p. xv): 'Brookes collection. The



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