Case 2569

***Halianassa studeri* von Meyer, 1838 (Mammalia, Sirenia): proposed designation of a neotype, and proposed conservation of *Halitherium* Kaup, 1838 by designation of a type species**

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Abstract. The purpose of this application is the designation of the holotype of *Pugmeodon schinzii* Kaup, 1838 as the neotype for the fossil sirenian *Halianassa studeri* von Meyer, 1838. In addition, it is proposed that *P. schinzii* be designated as the type species of *Halitherium* Kaup, 1838. This makes the troublesome nominal species *Halianassa studeri* a junior objective synonym of *Halitherium schinzii*.

1. In 1837, H. von Meyer (p. 677) proposed the name *Manatus studeri* for a left maxilla with four teeth of a sirenian from the Miocene (Burdigalian) 'Molassen-Sandstein' of Mäggenwyl bei Lenzberg, Canton Aargau, Switzerland. Since no description was provided, the name is a *nomen nudum*, as pointed out by Kellogg (1966, p. 68).

2. The following year, von Meyer (September 1838, p. 667) proposed the binomen *Halianassa studeri*, to include the Mäggenwyl specimen and several other fossil sirenians (see below).

3. Because the Mäggenwyl specimen was not described or illustrated until the work of Studer, 1887 (who called it *Halianassa studeri*), Kellogg (1966, p. 69) concluded that *Halianassa* von Meyer, 1838 was also a *nomen nudum* and that the genus should be properly cited as *Halianassa* Studer, 1887 (type species *Halianassa studeri* Studer, 1887). This is incorrect, and the use of these names by Studer (1887) is now considered as a citation of *Halianassa* and *H. studeri* von Meyer (1838).

4. Von Meyer (1838, p. 667) originally applied the name *Halianassa studeri* to the following:

- (a) 'Das weit verbreitete fossile Cetaceum von Flonheim' from the Oligocene (Rupelian) of the Mainz Basin, Germany, specimens which Kaup ((May) 1838a, p. 319, pl. 2) had previously called *Halytherium dubium* (Cuvier, 1824; spelling of generic name later altered to *Halitherium* by Kaup (1838b, p. 536)) and *Pugmeodon schinzii* Kaup, 1838a. The generic name *Pugmeodon* was dropped by Kaup (1855; see also Lepsius, 1882, p. 161) in favour of *Halitherium* and has never since been used as the valid name. This Flonheim form has universally been referred to as *Halitherium schinzii* (Kaup, 1838). The name *Hippopotamus dubius* Cuvier, 1824 was wrongly applied by Kaup (as *Halytherium dubium*) to the Oligocene material from the Mainz Basin; it properly refers to Eocene specimens from France (see below).
- (b) a post cranial skeleton from Rödersdorf in the Strasbourg Museum, described by Duvernoy (1835) but not named by him.

- (c) *Halicore cuvierii* de Christol, 1832, which in turn was thought to include both *Hippopotamus medius* Desmarest, 1822 (Miocene, Maine-et-Loire, France) and *Hippopotamus dubius* Cuvier, 1824 (Eocene, Gironde, France). The earliest available name for the latter form is *Hippopotamus minimus* Desmarest, 1822 (see Hooijer, 1952).
- (d) *Manatus studeri* von Meyer, 1837 (a *nomen nudum*, i.e. the Mäggenwyl specimen mentioned in para. 1).

5. These forms (a)–(d) which von Meyer (1838) assigned to *Halianassa studeri* have had at least six specific names and under Art. 12b(5), which states that a genus group name becomes available if ‘one or more available species group names’ are ‘clearly included under it’, *Halianassa* von Meyer, 1838 is an available name, with *H. studeri* von Meyer, 1838 as the type species, by monotypy. Its syntypes are the various specimens referred to under (a)–(d) above.

6. Kellogg (1966) and Thenius (1952, p. 110–111) regarded *Halianassa* von Meyer, 1838 as having been based on the Flonheim form now known as *Halitherium schinzii* (Kaup, 1838); but Kellogg (1966, p. 69 and caption to plate 43) referred to the maxilla from Mäggenwyl as the ‘type’ of *Halianassa studeri*. Under Art. 74a of the Code this is sufficient to designate a syntype as the lectotype.

7. The binomen *Halianassa studeri* causes confusion in a number of ways. The generic name *Halianassa* von Meyer, 1838 has priority over the well-established name *Metaxytherium* de Christol, 1840 (type species *Hippopotamus medius* Desmarest, 1822). Some authors, notably Simpson (1945) and Reinhart (1959), have used *Halianassa* as a valid senior synonym of *Metaxytherium*, but more recent authors (a list of ten representative works is held by the Secretariat) have followed Kellogg (1966) in rejecting its priority over *Metaxytherium*. Resurrection of *Halianassa* von Meyer, 1838 at this time and in this usage would be a blow to nomenclatural stability.

8. The problem also extends to the species level. Although the Mäggenwyl maxilla is not certainly diagnostic even generically, it and another specimen from the same region referred to *Halianassa studeri* by Studer (1887) are most likely referable to *Metaxytherium krahuletzii* Depéret, 1895 (Depéret & Roman, 1920, p. 33). *M. krahuletzii*, though a junior name, is unambiguous in its reference and is supported by much more abundant (albeit largely unpublished) fossil material. Therefore, it is in the interest of stability to protect it from displacement by the older but less well-founded name *H. studeri*.

9. In addition, if the Swiss specimens described by Studer (1887) prove referable to *Thalattosiren* Sickenberg, 1928, as Thenius (1952) believed, then this name is threatened and the suppression of *H. studeri* von Meyer, 1838 is desirable.

10. In short, the names *Halianassa* and *studeri* have had a destabilizing influence on nomenclature since the moment of their proposal. Because the continuing problems described above arise in part from Kellogg’s apparently inadvertent and unfortunate choice of a lectotype for *H. studeri*, it is in the interests of stability to set aside this lectotype and to designate a neotype.

11. I propose to select as neotype the holotype premolar of *Pugmeodon schinzii* Kaup, 1838a (Hessisches Landesmuseum [Darmstadt] no. Az 48), which is one of the original Flonheim syntypes of *H. studeri*. If *Pugmeodon schinzii* is designated as the type species of *Halitherium* as proposed below, this will have a stabilizing effect by making *Halianassa studeri* von Meyer, (September) 1838 a junior objective synonym

of *Halitherium schinzii* Kaup, (May) 1838. This choice of a type specimen for *Halianassa studeri* is the most desirable because, of the forms originally included in *Halianassa* von Meyer, 1838, *Halitherium schinzii* is the best illustrated and described and is represented by the most abundant, complete and easily obtained material.

12. *Halitherium* Kaup, 1838b is an incorrect subsequent spelling of *Halytherium* Kaup, 1838a. However, all workers, including Kaup himself in subsequent works, have used the spelling *Halitherium* (a representative list is held by the Secretariat). In the interest of stability, *Halitherium* should be ruled to be the correct original spelling.

13. Kaup (1838a) clearly founded his new genus *Halytherium* on a lower molar from Flonheim which, in his opinion, 'gehört zu *Hippopotamus dubius* Cuv.' However, *Hippopotamus dubius* had been based on an Eocene form which is at present referred to the genus *Protosiren* Abel, 1907 and is completely different from the Oligocene sirenian from Flonheim that Kaup studied. Therefore, *Halitherium* was originally based on a misidentified species and the name *Halitherium dubium* cannot be used for that species (Art. 49). Fortunately, by 1855 Kaup had placed *Pugmeodon schinzii* in synonymy with *Halitherium* and as the first reviser was using the combination *Halitherium schinzii* for the Flonheim sirenian, as have all later authors. Therefore, *Pugmeodon schinzii* Kaup, 1838 is the earliest available name for the Flonheim sirenian and hence for the type species of *Halitherium* Kaup, 1838. I propose that the Commission designate *Pugmeodon schinzii* Kaup, 1838 as the type species of *Halitherium* Kaup, 1838.

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

- (1) to use its plenary powers to rule that the correct original spelling of the generic name *Halytherium* Kaup, 1838 is deemed to be *Halitherium*;
- (2) to use its plenary powers to set aside all previous designations of type specimens of the nominal species *Halianassa studeri* von Meyer, 1838 and to designate as the neotype the fossil premolar from Flonheim. West Germany, bearing the number Az 48 in the Hessisches Landesmuseum, Darmstadt (the holotype of *Pugmeodon schinzii* Kaup, 1838);
- (3) to use its plenary powers to set aside all previous designations of type species for the nominal genus *Halitherium* Kaup, 1838 (spelling confirmed in (1) above), and to designate *Pugmeodon schinzii* Kaup, 1838 as the type species;
- (4) to place on the Official List of Generic Names in Zoology the name *Halitherium* (emendation of *Halytherium*) Kaup, 1838 (gender: neuter), type species, by designation in (3) above, *Pugmeodon schinzii* Kaup, 1838;
- (5) to place on the Official List of Specific Names in Zoology the name *schinzii* Kaup, 1838, as published in the binomen *Pugmeodon schinzii* Kaup, 1838 (specific name of the type species of *Halitherium* Kaup, 1838);
- (6) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
 - (a) *Halianassa* von Meyer, 1838, a junior objective synonym of *Halitherium* Kaup, 1838;
 - (b) *Halytherium* Kaup, 1838 (spelling emended to *Halitherium* as ruled in (1) above);
- (7) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *studeri* von Meyer, 1838, as interpreted by the neotype designated in (2) above, as a junior objective synonym of *schinzii* Kaup, 1838, as published in the binomen *Pugmeodon schinzii* Kaup, 1838.

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