(1910) Proposal to conserve the name *Sphenozamites* (fossil *Cycadophyta*)

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(1910) ***Sphenozamites*** Miq. in Tijdschr. Wis-Natuurk. Wetensch. Eerste Kl. Kon. Ned. Inst. Wetensch. 4: 210. 1851, nom. cons. prop.
Typus: *S. rossii* Zigno (Atti Reale Ist. Veneto Sci. Lett. Arti, ser. 3., 13: 14. 1868), typ. cons. prop.

In 1849, Brongniart (in Orbigny, Dict. Univ. Hist. Nat. 13: 110, reprinted in Tabl. Vég. Foss.: 61. Jul–Dec 1849, not seen) created *Otozamites* sect. *Sphenozamites* for cycadophyte leaves, stating that this taxon might ever better be raised to generic rank. He included one species with certainty, stating that *Cyclopteris beanii* Lindl. & Hutton should be the type; it is a species from the Jurassic of Yorkshire, England. Brongniart mentioned two more species that might ever be placed in this section as well. His diagnosis is rather brief, yet clear (translated): "the species with diverging but adjacent veins ending in the margin of the leaflets; the leaflets, however, are not auriculate at the base." This distinguishes the leaflets from those of *O.* sect. *Otozamites*, in which the leaflets are auriculate, especially on their upper margin, contracted and slightly cordate at their base, with veins diverging in all directions to the margin of the leaflet.

Miquel raised this section to generic rank, mentioning besides *Cyclopteris beanii* eight more species. In this article (in Dutch) he had a Latin diagnosis: "Folia pinnata coriacea, foliolis densis vel distantibus basi magis minusve constricta rhachi continue insertis, ovalibus usque linearibus saepe obliquis, subdimidiatis, apice obtusis, integerrimis vel apice denticulatis, multinerviis, nervis utrinque distinctis, plerisque bifurcia, divergentibus." In fact Miquel had a wide concept of *Sphenozamites*, in which the Yorkshire species *S. beanii*, having slightly auriculate leaflets, still could be marginally retained.

Several decades later on, however, palaeobotanists started to treat *S. beanii* as a species of *Otozamites*. This already was the opinion of Saporta (in Paléontol. Franç. Pl. Jurass. 2. Cycadées: 182. 1873), Zigno (in Fl. Foss. Format. Oolithicae 2: 104. 1881), Seward (in Foss. Pl. 3: 587. 1917) and Linnell (in Svensk. Bot. Tidskr. 26: 254. 1932).

Wesley (in Mem. Ist. Geol. Mineral. Univ. Padova 21: 1–56, t. 1–3. 1958) studied Zigno's rich collections from the Jurassic of N Italy. He also stated (l.c.: 20) that *Otozamites beanii* is a true *Otozamites*. He investigated the cuticle of two Italian species, *S. rossii* and *S. geylerianus*, and concluded that they are representatives of the *Bennettitales*. Harris in his standard work on the *Bennettitales* of the Yorkshire Jurassic does indeed treat *O. beanii* in *Otozamites* (Yorkshire Jurassic Fl. 3: 12–16. 1969). Many recent authors include *O. beanii* in *Otozamites*, e.g., Wang & al. (in Palaeoworld 17: 222–234. 2008), Yamada & Uemura (in Paleontol. Res. 12: 7. 2008) and Crane & Herendeen (in Amer. J. Bot. 96: 284–295. 2009).

Wesley's concept of *Sphenozamites* is almost universally accepted nowadays, e.g., also by Passoni & van Konijnenburg-van Cittert (in Rev. Palaeobot. Palynol. 23: 333. 2003); the only exception of which we know is in a Russian handbook: Vasilevskaja in Orlov, Osnovy Paleontol. [15]: 125. 1963 mentions "*Sphenozamites* Brongniart" with *S. beanii* as its type. To retain the genus in the more restricted sense, it requires a new type (*S. rossii* Zigno, see above). In other words, it should not any more be considered as based on Brongniart's section with *Cyclopteris beanii*.

The occasion of this proposal enables us to validate a species combination in *Apoldia* that Wesley published without full and direct reference to the basionym of its type. Wesley concluded that *S. tener* should be excluded from *Sphenozamites*, because its cuticle (as studied by Linnell, l.c.: 251) is of the *Cycadales* type. Wesley (l.c.) created the new genus *Apoldia* for it, validly published by the inclusion of one species name only, *Sphenozamites tener* Compter. The correct name for the type in *Apoldia* is *A. tenera* (Compter) Zijlstra, Kustatscher & Konijnenburg, comb. nov.: *Sphenozamites tener* Compter in Z. Naturwiss. 56: 12. 1883.