(1770) Proposal to conserve *Calvatia* nom. cons. (*Basidiomycota*, *Lycoperdaceae*) against an additional name, *Lanopila*

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(1770) ***Calvatia*** Fr., Summa Veg Scand.: 442. 1849, nom. cons. emend. prop.
Typus: *Calvatia craniiformis* (Schwein.) Fr. ex De Toni (*Bovista craniiformis* Schwein.).

(=) *Lanopila* Fr., Fung. Natal.: 52. 1848, nom. rej. prop.
Typus: *L. wahlbergii* Fr.

Calvatia Fr. is a cosmopolitan genus of medium- to large-sized puffballs, the potential economic importance of which has been mentioned in Coetzee & Van Wyk (in Taxon 54: 541. 2005). The group comprises more than 35 species, all characterized by fruit-bodies that dehisce by irregular fragmentation of the peridium and not by an apical pore. *Calvatia* is already conserved against *Omalycus* Raf., Précis Découv. Somiol.: 52. 1814, the type of which is *O. violacinus* Raf., *Langermannia* Rostk. in Sturm, Deutschl. Fl., sect. 3, 5: 23. 1839, the type of which is *L. gigantea* (Batsch : Pers.) Rostk. and *Hippoperdon* Mont. in Ann. Sci. Nat., Bot., sér. 2, 17: 121. 1842, the type of which is *H. crucibulum* Mont.

Fries (in Fung. Natal.: 52. 1848) established the genus *Lanopila* to accommodate a puffball from the province of Natal (now KwaZulu-Natal), South Africa, which, in honour of its collector, he named *Lanopila wahlbergii* Fr. *Lanopila* was distinguished from *Lycoperdon* Pers. : Pers. and *Scleroderma* Pers. : Pers. (the latter as *Sterrebekia* Link) on the basis of its smooth peridium and compact, elastic gleba, completely unattached to the peridium (etymology: *Lanopila* = woolly ball). The genus *Lanopila* was initially widely accepted (for example by Spegazzini in Anales Soc. Ci. Argent. 12: 248. 1881 & in Revista Argent. Hist. Nat. 1: 169. 1891; De Toni, Syll. Fung. 7(1): 95–96. 1888; Massee in Ann. Bot. (London) 4: 30. 1889; Patouillard in Bull. Soc. Mycol. France 15: 203. 1899; Lloyd in Myc. Writ. 1: 190–191. 1904; Fries in Ark. Bot. 8(11): 15–17. 1909; Petch in Ann. Roy. Bot. Gard. (Peradeniya) 7: 67. 1919; Lloyd in Myc. Writ. 7: 1177. 1923; Verwoerd in Ann. Univ. Stellenbosch, Reeks A, Wis.-Natuurk. 3: 10, 24–26. 1925; Fischer in Engler & Prantl, Nat. Pflanzenfam., ed. 2, 7a: 63–64. 1933; Swoboda in Ann. Mycol. 35: 1–14. 1937; Bottomley in Bothalia 4: 577–579. 1948; Zeller in Mycologia 41: 48–49. 1949; Ahmad in Sydowia 4: 39–43. 1950; Dennis in Kew Bull. 8: 326. 1953; and Ainsworth, Dict. Fung., ed. 5. 1961). However, after the resurrection of the genus *Langermannia* Rostk. to accommodate a segregate of *Calvatia* by Kreisel (in Feddes Repert. 64: 89–201. 1962) and Dring's subsequent incorporation of *Lanopila* Fr. and *Lasiosphaera* Reichardt into *Langermannia* (in Mycol. Pap. 98: 45–47. 1964), only a handful of authors such as Dennis (in Kew Bull., Addit. Ser. 3: 10. 1970), Homrich & Wright (in Mycologia 65: 785–789. 1973), Kobayasi (in Trans. Mycol. Soc. Japan 17: 366–373. 1976) and Domínguez de Toledo (in Darwiniana 32: 218. 1993) continued to treat *Lanopila* as an autonomous genus. On the other hand Dring's rejection of *Lanopila* as a separate genus, supported also by the work of Ponce de León (in Phytologia 48: 373–383. 1981), was widely accepted (e.g., by Dring & Rayner in J. E. Africa Nat. Hist. Soc. Natl. Mus. 26: 32. 1967; Kreisel in Beih. Nova Hedwigia 25: 18. 1967; Demoulin & Dring in Bull. Jard. Bot. Belg. 45: 361–362. 1975; Hawksworth & al., Dict. Fung., ed. 7. 1983; Calonge & Martín in Bol. Soc. Micol. Madrid 14: 186–187. 1990; Lange in Blyttia 3–4: 142. 1993; Hawksworth & al., Dict. Fung., ed. 8. 1995; Calonge, Fl. Mycol. Iber. 3: 115. 1998; and Kirk & al., Dict. Fung., ed. 9. 2001).

Thirty years after his reinstatement of the genus *Langermannia*, Kreisel (in Persoonia 14: 431–439. 1992) changed his earlier views and reincorporated *Langermannia* (including *Lanopila*) into the genus *Calvatia* as *Calvatia* sect. *Langermannia* (Rostk.) Kreisel. Although several authors have supported Kreisel's decision (e.g., Pegler & al., British Puffballs, Earthstars and Stinkhorns: 116–117. 1995; Portman & al. in Mycotaxon 62: 435–443. 1997; Moreno & al. in Feddes Repert. 109: 41–49. 1998; and Zervakis & al. in Mycotaxon 66: 315. 1998) many others have continued to treat *Langermannia* (including *Lanopila*) and *Calvatia* as separate genera (e.g., Lange, l.c.: 142. 1993; Mornand in Bull. Soc. Mycol. France 109: 156. 1993; Martín & Llimona in Mycotaxon 51: 290. 1994; Moyersoen & Demoulin in Lejeunia, n.s. 152: 40. 1996; Grgurinovic, Larger Fungi of South Australia: 646–648. 1997; Calonge, l.c.: 115. 1998; Kirk & al., l.c. 2001). Demoulin (in Mycotaxon 46: 77–84. 1993) commented however: "At the moment I consider *Langermannia* a weakly defined genus, and were it not for tradition, would merge it with *Calvatia*."

As has been pointed out by Bottomley (l.c.: 578. 1948), there is very little distinction between *Lanopila* and those *Calvatia*-species which do not have sterile bases and, as has been mentioned also by Domínguez de Toledo (l.c.: 218. 1993), the only distinguishing character lies in the structure of the gleba, which, in the case of *Lanopila,* remains a compact, coherent mass at maturity, whereas it disintegrates in *Calvatia*. A recent study [Coetzee, Contributions Towards a New Classification of *Calvatia* Fr. (Lycoperdaceae) in South-

ern Africa. 2006, unpublished Ph.D. thesis, University of Pretoria] has indicated that such a distinction does not always hold true. Compact glebas also occur in 'traditional' *Calvatia* species such as *Calvatia candida* (Rostk.) Hollós while, on the other hand, the gleba in some specimens of '*Lanopila*' may also disintegrate to some degree. On the basis of that and other observations in the same study we fully concur with Kreisel's inclusion of *Lanopila* in the genus *Calvatia*. Additionally, as has been discussed elsewhere (Coetzee, l.c.: 258, 263. 2006), *Lanopila wahlbergii*, the type of the genus *Lanopila*, is regarded as a synonym of *Calvatia argentea* (Berk.) Kreisel.

As pointed out also by Kreisel (l.c.: 433. 1992), inclusion of *Lanopila* in *Calvatia* causes a 'nomenclatural inconvenience' since *Lanopila*, being an older name, would enjoy priority over the much better known *Calvatia*, and that would necessitate more than 35 name changes. As was mentioned before (Coetzee & van Wyk, l.c.: 542. 2005), the generic name *Calvatia* is well known and firmly entrenched, and although it is currently protected against the earlier synonyms *Omalycus, Langermannia* and *Hippoperdon*, it enjoys no protection against *Lanopila*. Following the suggestion of Kreisel (l.c.: 433. 1992), the rejection of *Lanopila* Fr. 1848 in favour of *Calvatia* Fr. 1849 is hereby formally proposed. Acceptance of *Lanopila* Fr. as additional nomen rejiciendum would be a logical step in line with the previous conservation of *Calvatia* against *Omalycus, Langermannia* and *Hippoperdon*.

(1771) Proposal to conserve the name *Hypnum molle* (*Bryopsida*, *Amblystegiaceae*) with a conserved type

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(1771) ***Hypnum molle*** Hedw., Spec. Musc. Frond.: 273, t. 70, f. 7–10. 1 Jan 1801 [*Musci*], nom. cons. prop.
Typus: [Austria] Salisburgia, Lanschitzkar prope Lessach; 2200–2300 m., *Breidler* in Kerner, Fl. Exs. Austro-Hung. No. 1924 (KRAM No. B-3366; isotypi: BM, FH, G, MA, NY, PC), typ. cons. prop.

Hygrohypnum molle (Hedw.) Loeske and *H. duriusculum* (De Not.) D.W. Jamieson are the names applied to a pair of closely related but otherwise clear-cut potamophilous boreal-montane species, which belong within *Hygrohypnum* Lindb. sect. *Dilatata* Ochyra, and that grow on rocks in fast-flowing streams, brooks and rivers, usually at high elevations in the mountains of the Northern Hemisphere. As is the case with most aquatics, they exhibit a remarkable phenotypic plasticity, yet they are readily recognized. The differences between the two are primarily found in the leaf areolation, including presence or absence of the alar cells and size of the laminal cells, whereas other characters such as the leaf shape and margins, as well as the texture of the plants may be helpful but not definitely deciding because of frequent overlap. The former, *H. molle*, includes soft plants with straight appressed leaves which are difficult to see in the field. The leaves are broadly ovate, gradually tapering to a bluntly acute point and have undifferentiated alar cells, a rather uniform areolation with mid-leaf cells thin-walled, rhomboidal to elongate-flexuose, (20–)30–50(–75) µm long, finely denticulate to rarely entire margins in the distal half and usually prorate upper cells of the perichaetial leaves. The latter, *H. duriusculum*, which is better known in older floras and floristic treatments under the name *H. dilatatum* (Wilson) Loeske, includes more rigid plants with subsecund visible leaves which are oblong-elliptic to broadly ovate, more abruptly narrowed to a broadly acute, obtuse or apiculate apex. The alar cells are quadrate to short-rectangular, more widened, mostly yellowish or brownish, thick-walled and form a distinctly differentiated group. The leaf areolation is extremely variable, with mid-leaf cells shortly fusiform to linear-flexuose, (25–)45–70(–105) µm, and mostly thick-walled, whereas the leaf margins are entire or faintly denticulate near the apex, and the upper cells of the perichaetial leaves are smooth.

Although species delimitation in the genus *Hygrohypnum* is in some cases difficult, the identity of both taxa has very seldom been questioned and they are readily distinguished, primarily on the basis of the different leaf areolation. Also, they have been consistently accepted and widely used in bryological literature since their inception, e.g., by Schimper (Syn. Musc. Eur., ed. 2, 2: 776. 1876), Husnot (Musc. Gall.: 412–413. 1894), Braithwaite (Brit. Moss-Fl. 3(18): 56–57. 1898), Limpricht (Laubm. Deutschl. 3: 528–531. 1899), Roth (Eur. Laubm. 2: 643–644. 1905), Brotherus (in Engler & Prantl, Nat. Pflanzenfam. 1(3): 1040. 1908 and 11: 345. 1925, and Laubm. Fennoskand.: 501–502. 1923), Amann