

(718) Proposal to conserve **Baeomyces** (Fungi).

*Baeomyces* Persoon, Ann. Bot. (Usteri) 7: 19. 1794 ("Boeomyces") (nom. orth. et cons. prop.). T.: *Lichen fungiformis* Scopoli [= *Baeomyces rufus* (Hudson) Rebentisch (*Lichen rufus* Hudson)].

The genus *Baeomyces* comprises some very common lichen species of the family Cladoniaceae sensu lato (or the separate family Baeomycetaceae) and most of the temperate species are quite familiar to botanists. Indeed the genus has been widely used since its creation.

#### *The Illegitimacy of Baeomyces*

An excellent account of the history of the genus is given by Imshaug (1972). His comprehensive discussion does not need major comment here but his conclusions on the legitimacy of *Baeomyces* cannot be followed.

*Baeomyces* was created as a genus by Persoon in 1794 as a new name for *Tubercularia* Wigg. (Primit. Fl. Holsat.: 87. 1780). Persoon argued that the name was inappropriate and that *Tubercularia* had also been used for a fungus genus by Tode (Fungi Mecklenburgenses Selecti, fasc. 1: 87. 1790). *Tubercularia* Tode is therefore a posterior homonym of *Tubercularia* Wigg. and is to be rejected (Art. 64). *Baeomyces* is also to be rejected as it is superfluous (Art. 63). The fact that *Tubercularia* Tode was later conserved against *Tubercularia* Wigg. (Wakefield, 1939) does not however change the illegitimacy of *Baeomyces*; once superfluous, a name remains superfluous. Under the Art. 6.4, *Baeomyces*: once superfluous, a name remains the Art. 6.4, *Baeomyces* cannot become legitimate unless it is conserved. If *Baeomyces* is not conserved, it must be replaced by the first name validly published which deals with the same species group. As shown below, such a name is *Sphyridium* Flotow or *Ludovicia* Trevisan. It is highly undesirable that a well-known name be replaced by names not used for more than a century. The conservation of *Baeomyces* is consequently proposed. It is not however necessary to conserve it against *Tubercularia* Wiggers as this name has already been rejected and is now totally unavailable under Art. 14.6.

The orthography of the name is also involved: on page 10 (Ann. Bot. (Usteri) 7. 1794) Persoon spells *Baeomyces* and on page 19, he writes *Boeomyces*. In an infrapaginal note on page 10, he says that he refers to Ehrhart in the choice of the new generic name *Baeomyces*. In his "Beiträge zur Naturkunde" (I : 192. 1787), Ehrhart writes *Lichen bæomyces*. Etymology of *Bæomyces* seems to be βαιον : *bæomyces* therefore would mean "small fungus," which is consistent with the external morphology of the *Baeomyces* species. Thus the transcription of *bæomyces* is *baeomyces*: *boeomyces* must be considered as a typographic error under Art. 73. Nevertheless the conservation of the time-honored orthograph *Baeomyces* is proposed to avoid any interference with Art. 75.2.

#### *Further Comments on the Nomenclature of the Group*

*Sphyridium* was published in 1843 by Flotow (Uebers. Arbeiten Veränd. Schles. Ges. Vaterl. Cult. 1842: 198. 1843). The protologue includes two species: *S. carneum* (Retz.) Flotow and *S. fungiforme* (Scopoli) Flotow. These two species are closely related and there is no indication in Flotow's text to suggest a lectotype choice. If one selects *S. fungiforme* as the lectotype species, *Sphyridium* becomes and will remain superfluous, even if *Baeomyces* is conserved: it has the same type species as *Tubercularia* Wigg. and as *Baeomyces* Pers. If *S. carneum* is selected as the lectotype species, *Sphyridium* becomes the earliest name available to replace *Baeomyces*. *Sphyridium* has been used at the infrageneric level within *Baeomyces* by some authors (Frey, 1933; Thomson, 1967). These authors considered *B. roseus* Pers. as the type species of *Baeomyces* and they used the name "subgenus *Sphyridium*" to deal with the *B. rufus* aggregate. As *B. roseus* cannot by any means be considered as the type species, *Sphyridium* cannot be used at the infrageneric level in the classification presented by those authors. I select *Lichen fungiformis* as the lectotype of *Sphyridium*: such a choice makes *Sphyridium* superfluous; it will also clarify the eventual infrageneric classification within *Baeomyces* and will avoid any undesirable confusion with the classifications of Frey and Thomson.

*Ludovicia* Trevisan was described in 1857 (Rivista Period. Lavori Accad. Padova 5: 70. 1857). The



protologue includes four species: *L. placophylla* (Ach.) Trevisan, *L. aurata* (Mont. & Bosch) Trevisan, which is close to *Baeomyces placophyllus* Ach. (see Taylor, 1972; p. 311), *L. cladonia* (Fr.) Trevisan (a name uncatalogued by Zahlbruckner and whose application is unknown to me) and *L. imbricata* (Hook. in Kunth) Trevisan, another species of the *B. rufus* aggregate. Trevisan (p. 71) based his new genus on *Baeomyces placophyllus* ("Genere esimio, naturalissimo, fondato sul *Baeomyces placophyllus* di Acharius"); I consider this statement as valid typification of the genus. *Ludovicia* therefore falls into synonymy with *Baeomyces* Pers. s.str.

*Cyanobaeis* Clements (The Genera of Fungi, p. 175. 1909) whose type and only species is *Baeomyces paeminosus* Krempelh. is of uncertain application. The species has been described from the Fiji archipelago with a blue-green alga as phycobiont: it requires further investigation.

Thomson (1967), Jahns and Smittenberg (1970), Jahns (1971), Jahns and Horst-Iwema (1972) and Ahti (1982) have shown that *Baeomyces* is a heterogenous assemblage: In the *B. roseus* aggr., apothecia are formed in the medulla and then are raised by the podetia which do not contain any algae. The podetia as well as apothecia are nearly hollow and the hypothecium is not distinct from the apothecial stalk. In the *B. rufus* aggregate, podetia arise prior to apothecial formation and contain algae. The stipes are solid and the hypothecium is clearly distinct.

If one wants to ascribe the generic level to these aggregates, the earliest name for the *B. roseus* aggregate is *Dibaeis* Clements (The Genera of Fungi: 175. 1909), which is typified by *D. rosea* (Pers.) Clements.

Imshaug (1972) has typified *Lichen ericetorum* L. as well as the generic names *Tubercularia* and *Baeomyces*. I agree with his choice but would like to make a few comments on the nomenclature of *Lichen fungiformis*. New taxa described and new combinations made in the Primitiae Florae Holsaticae published in Kiel in 1780 are credited either to Georgius Henricus Weber, or to Fridericus Henricus Wiggers, or even to both of them. The problem is rather complicated (see for example Grummann, 1962) and must be solved by a comprehensive study of the texts. The "Primitiae Florae Holsaticae" is a thesis sponsored by Johannes Christianus Kerstens whose author is F. H. Wiggers ("Avctor Fridericus Henricus Wiggers" on the front page). There is no doubt that most (by no means all) of the cryptogamic names first used and that most (by no means all) of the combinations first made in this book have been compiled from the writings and the teachings of G. H. Weber. On the first page of the "Supplementum" to the "Primitiae Florae Holsaticae," G. H. Weber says he actually is the author of the "Primitiae": "Ex quo in Primitiis Florae Holsaticae Vegetabilium utriusque Ducatus indigenarum brevem adumbrationem exposueram . . ." As pointed out by Proskauer (1958), this sentence has led to the acceptance of Weber as the author of the original work. In his "Thesaurus Literaturae Botanicae" published in 1851 in Lipsiae, G. A. Pritzel cites the "Primitiae Florae Holsaticae" under G. H. Weber with the following comment: "Dissertationem die 29 Martii 1780 sub praesidio J. C. Kerstens proposuit F. H. Wiggers; sed autorem se professus est cl. G. H. Weber." The facsimile edited by W. Junk in Berlin in 1925 also appeared with G. H. Weber as the author. Nonetheless Proskauer (1958) has pertinently argued that "unless otherwise stated in the work, a newly proposed name is to be credited to Wiggers alone." If one pretends that those names and combinations must be credited to G. H. Weber, an important fact point to their citation as "G. H. Weber ex F. H. Wiggers" or (Recommendation 46 E of the code) "F. H. Wiggers": there is no certainty that G. H. Weber initially provided the author with descriptions of new taxa and had agreed to see them published in F. H. Wiggers' work. In any case, the citation "Wiggers" is correct and should be adopted.

In the case dealt with in this paper, *Tubercularia* must be cited as "Wigg., Primit. Fl. Holsat.: 87. 1780." The lectotype species has been designated by Imshaug (1972) who very rightly rejected a former typification made in the Code (Appendix III: Nomina generica conservanda et rejicienda). The type must be cited as *Tubercularia fungiformis* (Scopoli) Wigg.; Wiggers in the "Primitiae" refers to Weber's former publication (1778) in which (p. 196, n° 252) he writes "*Lichen fungiformis* (. . .) Scop. Carn. 1, p. 76, Sp. 8. Carn. 2, p. 360, n. 1364." The first edition of Scopoli's Flora Carniolica is not nomenclaturally Linnean but the second is. The basionym of *Tubercularia fungiformis* is therefore *Lichen fungiformis* Scopoli (Flora Carniolica, 2nd ed., 2: 360. 1772).

I would also like to stress the importance of the lectotypification of *Tubercularia* Wigg. As pointed out by Imshaug (1972), the type selected in the course of conservation of *Tubercularia* Tode (Wakefield, 1939) is *T. ericetorum*, an epithet which goes back to Linnaeus, 1753. Now, "All collections currently in the Linnean herbarium are . . . the lichen referred to today as *Icmadophila ericetorum* (L.) Zahlbr." (Imshaug, 1972). Under the new Art. 10 (as modified at the Sydney Botanical Congress) such a choice means that despite the description both *Tubercularia* Wigg. and *Baeomyces* Pers. are earlier names for the well-known genus *Icmadophila* Trevisan. Another argument following the lectotypification



made by Imshaug (1972) is therefore to save both *Baeomyces* and *Icmadophila* in their current well-known usages.

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