Outlineoffungi.org – Note 961 *Gilbertaria*

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Gilbertaria M. Svensson & Fryday

Gilbertaria is the first crustose lichenized genus that was recently established by Svensson & Fryday (2022). The genus accommodates four species including *G. contristans*, *G. holomeloides, G. astrapeana*, and *G. squalescens* in which *G. contristans* M. Svensson & Fryday is the type species. Among these species, *G. contristans*, *G. holomeloides*, and *G. squalescens* were initially placed in the genus *Lecidea*. *Lecidea* was introduced at the beginning of lichenological history (Acharius 1803) and accommodated the majority of the known lecideoid species. Lecideoid lichen-forming fungi are a large and heterogeneous group of crustose lichens. The taxa were characterized by apothecia without symbiotic algal cells in the apothecial margin. In the later classification, crustose lichens with hyaline ascospores, a green, non-trentepohlia algal symbiont and lacking algal cells in the apothecial margin were assigned in different genera based on the ascospores (*Lecidea* for 1-celled; *Catillaria* for 2-celled; *Bacidia* for 3 or more transverse septa; *Rhizocarpon* for muriform). Due to the disproportionate importance placed on thalline morphology, species with similar morphology were placed in different genera and subsequently, different families. For example, species with a squamulose thallus were placed in *Lecidea* if one celled and *Toninia* if the ascospores are septate. Fries (1874), included *Catillaria sphaeralis*, *Lecidea dufourii,* and *Thalloidima rimulosum* as synonyms of *Toninia* (= *Lecidea*) *squalescens*. Zahlbruckner (1921–1940) accepted four species in three different genera: *Catillaria contristans* (including *Lecidea holomeloides*), *C. sphaeralis* (including *L. dufourii*), *Toninia squalescens* (including *Thalloidima rimulosum*) and *Lecidea hypocyanea*. The nomenclature confusion of *Catillaria contristans* and *Toninia squalescens* remained unresolved with a lack of typification. Andersen and Ekman (2005) initially studied the phylogenetic placement of *Catillaria contristans* and found the close phylogenetic relationship to *Micarea peliocarpa*. However, the sequence of *Catillaria contristans* obtained was from *M. oreina* and was later identified as *Protomicarea limosa* (Ekman et al. 2008). Svensson & Fryday (2022) studied these species based on seven loci (SSU, ITS, LSU, SSU, MCM7, RPB1and RPB2) phylogenetic analyses and found a monophyletic clade with high statistical support in the family *Sphaerophoraceae*. The taxa are characterized by crustose growth form, 1-septate ascospores, thick paraphyses and asci of the Biatora-type. Conidiomata were not observed by Svensson & Fryday (2022). All *Gilbertaria* species are primarily alpine and grow on dead or dying bryophytes on rock walls or in areas of late snowline. The taxonomic placement of *Gilbertaria* is in *Sphaerophoraceae, Lecanorales, Lecanoromycetidae, Lecanoromycetes, Pezizomycotina,* and *Ascomycota*.

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