(1461-1463) Proposals to reject the names Pyrenotrichum, Chlorocyphella and Cytra (lichenised Fungi Imperfecti: form-class Coelomyces)

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[Fungi], nom. rej. prop.
Type: P. splitgerberi Mont.

[Fungi], nom. rej. prop.
Type: C. subtropica Speg.

[Fungi] nom. rej. prop.
Type: C. licaniæ Bat. & H. Maia.


Müller Argoviensis (Flora 64: 111–112. 1881) expressed the idea that the structures described by Montagne represented conidiomata of the lichen on which they grew and coined the term “campylidia” for them. Although sometimes found on thalli also producing ascomycetes, “campylidia” are often the only structures found on lichen thalli. Except for Malme (Svensk Bot. Tidskr. 29: 302–305. 1935), mycologists did not accept until recently the conidiomata hypothesis. Santesson (Symb. Bot. Ups. 12: 40–41. 1952) elaborated a detailed concept of parasymbiotic Pyrenotrichum species growing on different lichen genera, but postponed formal description and discussion to another publication that has never been published. The concept of parasymbiosis in Pyrenotrichum was nevertheless accepted by Hawksworth (Bull. Brit. Mus. Nat. Hist. Bot., ser. 9, 1: 59. 1981).

Sérusiaux (Lichenologist 18: 1–35. 1986) and Vězda (Folia Geobot. Phytotax., Praha, 21: 199–219. 1986) almost simultaneously restudied the structures recognised as Pyrenotrichum and demonstrated that they represent genuine conidiomata of the lichens which carry them, and both argued that the term

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campylidids was appropriate. Morphology and anatomy of the campylidids were used by Vězda (l.c.), together with apothecial characters, to establish new genera (incl. Calopadia Vězda) for species previously assigned to Catillaria s. lat., Bacidia s. lat. and Lopadium s. lat.

As indicated by Santesson (l.c.), campylidids are highly apomorphic at the generic level. Unfortunately from the nomenclatural point of view, an exception concerns the type of campylidids represented by Pyrenotrichum spligerberi, Chlorocyphella subtropica and Cyrtia licaniæ. Indeed, they all belong to a type characteristic of two lichen genera, viz. Calopadia Vězda (Folia Geobot. Phytotax., Praha, 21: 208. 1986) and Tapellaria Müll. Arg. (Lichenes Epiphylli Novi: 11. 1890), which are otherwise easily recognised by apothecial features. When carefully examined anatomically, the campylidids of Calopadia and Tapellaria can be distinguished (Vězda, Folia Geobot. Phytotax., Praha, 21: 205. 1986; Lücking, Phytotax. 39: 155. 1999) but the published descriptions and the accessible type collections do not provide the essential details.

As recently demonstrated (Lücking & al., Lichenologist 30: 139–140. 1998), the type material of Cyrtia licaniæ carries apothecia and is conspecific with Calopadia subcoerulescens (Zahhir.) Vězda. Since Calopadia is much more common and widespread than Tapellaria, it is very likely that both Pyrenotrichum and Chlorocyphella also belong to the former genus.

However, a definite conclusion might be impossible even when type collections are re-examined, since molecular methods are likely to be useless on such old material. Kalb & Vězda (Folia Geobot. Phytotax., Praha 22: 309–310. 1987) were aware that Pyrenotrichum and Chlorocyphella most probably represent an anamorphic form of Calopadia but nevertheless keep on using the latter as the generic name. This option has been followed by subsequent workers (e.g., Lücking, Nova Hedwigia Beih. 104. 1992; Aptroot & al., Bibl. Lichenol. 64. 1997; Lücking, Trop. Bryol. 15: 57. 1998, Phytotax. 39: 131–165. 1999, Willdenowia 29: 318. 1999; Cáceres & Lücking, Nova Hedwigia 70: 222. 2000).

The nomenclatural situation can thus be described as follows: the generic name Cyrtia is an earlier name for Calopadia, and both Pyrenotrichum and Chlorocyphella, which also antedate it, most probably refer to it as well; Pyrenotrichum could alternatively be a threat to Tapellaria, but we consider this situation unlikely. Whatever the conclusion of a detailed examination of the type collections of Pyrenotrichum spligerberi and Chlorocyphella subtropica, we wish to avoid any nomenclatural changes for the two genera involved (Calopadia and Tapellaria). Both are widely distributed in tropical and subtropical areas, with about 25 species described, and current studies keep yielding new taxa which are about to be described. We therefore propose the rejection of the generic names Pyrenotrichum Mont., Chlorocyphella Spel. and Cyrtia Bat. & H. Maia, based on types expressing only anamorphic characters.

We also wish to point out the problems which arise from the establishment of new lichen genera based only on anamorphic characters. Because lichen taxonomy is mainly based on asccarp structures, especially in crustose species, genera based solely on anamorphic characters are easily overlooked. Well-known examples include the pycnidial stage of Phyllobathelium (Müll. Arg.) Müll. Arg. which was described earlier as Opercularia Stirt. (Santesson in Symbol. Bot. Ups. 12: 287–288.
1952; Lücking & al. in Lichenologist 30: 156–157. 1998), and Bacidina Vězda whose pycnidal stages were previously described as Lichingoldia D. Hawksw. & Poelt and Woessia D. Hawksw. & Poelt (Ekman, Taxon 45: 687–688. 1996; van den Boom & al., Lejeunia 158: 36–39. 1998). We therefore strongly recommend that when formally describing new crustose species known only by anamorphic features they be placed in an already accepted genus, rather than establishing a new one. This should prevent the introduction of superfluous names, and the taxonomic reassessment, when needed, would be less likely to cause nomenclatural confusion.