

## PROPOSALS TO CONSERVE OR REJECT NAMES

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**(2031) Proposal to conserve the name *Detonia* Freng. (*Bacillariophyceae*) against *Detonia* Sacc. (*Ascomycota*)**

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- (2031) *Detonia* Freng. in Darwiniana 9: 119. 1949, nom. cons. prop. Typus: *Detonia superba* (C. Janisch) Freng. (*Cocconeis superba* C. Janisch)
- (H) *Detonia* Sacc., Syll. Fung. 8: 105. 1889, nom. rej. prop. Typus (vide Clements & Shear, Gen. Fungi, ed. 2: 328. 1931): *D. leiocarpa* (Curr.) Sacc. (*Peziza leiocarpa* Curr.) (*'lejocarpa'*)

The diatom generic name *Detonia* Freng. (l.c.) was recently recognised as a later homonym of the fungal name *Detonia* Sacc. (l.c.), and therefore, a new diatom generic name, *Neodetonia* S. Blanco (in Phycologia 50: 327. 2011) was proposed as its replacement. Within the new genus, *Detonia superba* (C. Janisch) Freng. emend. Louvrou & al. (in Manoylov & Ognjanova-Rumenova, Advances Phycol. Stud.: 128. 2006) [non *Detonia superba* sensu Freng. in Darwiniana 9: 119, pl. 11, fig. 8. 1949] is renamed *Neodetonia superba* (C. Janisch) S. Blanco, and *Detonia dobrinae* Louvrou & al. (l.c.), is renamed *Neodetonia dobrinae* (Louvrou & al.) S. Blanco.

The fungal generic name *Detonia* Sacc. has long been treated as a synonym (Seaver in Mycologia 6: 5–6. 1912; Clements & Shear, l.c.; see also Korf in Mycologia 52: 649. 1960), currently of *Plicaria* Fuckel (in Jahrb. Nassauischen Vereins Naturk. 23–24: 325. 1870) (Spooner, Field Mycol. 2: 57. 2001; in Czech. Mycol. 52: 263. 2001). It is noted that *Detonia* Sacc. is considered as a heterotypic synonym of *Plicaria* in MycoBank (<http://www.mycobank.org/MycoTaxo.aspx?Link=T&Rec=1484>) and Species Fungorum (<http://www.speciesfungorum.org/Names/SynSpecies.asp?RecordID=4254>) (see also Index Fungorum, <http://www.indexfungorum.org/names/NamesRecord.asp?RecordID=1484>); and Kirk & al., Dict. Fungi, ed. 10: 202. 2008).

In the protologue of *Detonia*, Saccardo (l.c. 1889) included three species, *D. foveata* (Fuckel) Sacc., *D. leiocarpa* (Curr.) Sacc., and *D. trachycarpa* (Curr.) Sacc., and referred to no others. He also included the synonym “*Discaria* Sacc. Consp. gen. Disc. p. 3 [1884] nec Hook. [1830]” which refers to an unranked subdivision of *Peziza* subg. *Discina* (Fr.) Sacc. (“b. *Discaria* Sacc.”) (Saccardo in Bot. Centralbl. 18: 215. 1884), of which the only included species was *P. leiocarpa*. In *Index Nominum Genericorum* (Farr & al. in Regnum Veg. 100. 1979) *Detonia* was treated as “based on” this synonym and thus *D. leiocarpa* was considered the original type. As Saccardo (l.c. 1889) provided a generic description, *Detonia* need not be regarded as a replacement name for *Peziza* [unranked] *Discina*, but conveniently the first lectotypification (Clements & Shear, l.c.) was by *D. leiocarpa*.

The basionym of *D. leiocarpa*, *Peziza leiocarpa* Curr. (in Trans. Linn. Soc. London 24: 493. 1864), was referred to *Plicaria* along with that of *D. trachycarpa*, *Peziza trachycarpa* Curr. (l.c.), by Boudier (in Bull. Soc. Mycol. France 1: 102. 1885) without, however, making

either new combination; these were both made later by Boudier (Hist. Classif. Discomyc. Europe: 50. 1907). Boudier (l.c. 1885) recognised two groups within the genus (without indication of rank), *Levispores* and *Verrucispores*, and included the statement “Type des Levispores: *P. leiocarpa* Curr. et des Verrucispores: *P. trachycarpa* Curr.” As *P. leiocarpa* was not referred to by Fuckel in the protologue of *Plicaria*, whereas *P. trachycarpa* was, Korf (l.c.) treated this as a selection by Boudier of *Peziza trachycarpa* as type of “the type subdivision” and thus “the first valid selection of a lectotype for *Plicaria*”, a selection that is generally accepted.

*Plicaria leiocarpa*, the type of *Detonia*, represents a name in current use in the databases MycoBank and GenBank (see also Index Fungorum, Species 2000, and ITIS Catalogue of Life: 26 July 2011 [<http://www.catalogueoflife.org/details/species/id/8444136>], Encyclopedia of Life [<http://eol.org/pages/1009226/names/synonyms>], StrainInfo [<http://www.straininfo.net/taxa/170293>]) although previously it had been included within *Plicariella* (Sacc.) Rehm (in Rabenh. Krypt.-Fl., Pilze-Ascomyceten 1(3): 933. 1894) as *Plicariella leiocarpa* (Curr.) Rehm (in Rabenh. l.c. 1894: 994) and in *Galactinia* (Cooke) Boud. (l.c. 1885: 101) as *Galactinia leiocarpa* (Curr.) Le Gal (in Bull. Soc. Mycol. Fr. 78: 212. 1962), both generic names also considered synonyms of *Plicaria* (Kirk & al., Dict. Fungi, ed. 10: 549, 271. 2008). More recently, *P. leiocarpa* has been recognised as a heterotypic synonym of *P. endocarpoides* (Berk.) Rifai (Rifai in Verh. Kon. Ned. Akad. Wetensch., Afd. Natuurk., Sect. 2. 57: 255. 1968; Spooner, l.c.).

Whereas *Detonia* has consistently been treated as a synonym since the early part of the 20th century, *Plicaria* represents a genus in current use with *Plicaria trachycarpa* ( $\equiv$  *Peziza trachycarpa*  $\equiv$  *Detonia trachycarpa*) as generic type. Morphological and molecular characters of both rough-spored and smooth-spored *Plicaria* species suggest that this genus represents a distinct monophyletic group (Norman & Egger in Mycologia 88: 986–995. 1996; Hansen & al. in Mycologia 93: 958–990. 2001; Laessoe & Hansen in Mycol. Res.: 111: 1075–1099. 2007), although in the first of these it was noted that the smooth-spored *P. endocarpoides* (incl. *P. leiocarpa*, type of *Detonia*) could be distinguished from the rough-spored species, that include the type, *P. trachycarpa*, a situation also reflected in the cladograms of the later studies.

However, using the DNA-dependent RNA Polymerase Subunit II (RPB2) sequences of *Plicaria trachycarpa* (acc. no. AY500478) as reported in the paper of Hansen & al. (in Molec. Phylogenet. Evol. 36: 1–23. 2005) and retrieving the respective sequences of *P. anthracina* (acc. no. AY500479) and *P. leiocarpa* (acc. no. DQ842038) from GenBank, we estimated the genetic distances separating them. For obtaining a measure of the RPB2 divergence characterizing congeneric species in *Pezizales*, we also retrieved the RPB2 sequences of

*Peziza* (sensu stricto) reported in Hansen & al. (l.c. 2005), i.e., acc. nos: AY500496, AY500497, AY500498, AY500499, AY500510 and AY500519. The levels of molecular divergence (RPB2 gene) separating *Plicaria leiocarpa* from the above *Plicaria* species are within the levels estimated to be differentiating congeneric species in *Pezizales*, i.e., among *Plicaria* species 7.1%, among *Peziza* s.str. species 10.7%, using the Kimura two parameter model (Kimura in J. Molec. Evol. 16: 111–120. 1980). Therefore, the molecular data are in favour of *Plicaria leiocarpa* being firmly placed within this genus and being congeneric with *Plicaria trachycarpa*.

Unfortunately, no RPB2 gene sequences under the name *P. endocarpoides* were available in GenBank. However, there existed 18S ribosomal sequences identified as from *P. endocarpoides* (AF133156, U40676), *P. trachycarpa* (U40675), and *P. leiocarpa* (DQ842039). The divergence between sequences identified as *Plicaria endocarpoides* and *Plicaria leiocarpa* is 0.2%, whereas the divergence between those under the names *P. leiocarpa* and *P. trachycarpa* is 0.75% and between those under *P. endocarpoides* and *P. trachycarpa* is 0.7%. Consequently, the synonym status of *P. leiocarpa* and *P. endocarpoides* is well justified. At this point we have to add that we performed the same 18S ribosomal gene analysis in the *Peziza* species analyzed for RPB2 gene above. In this comparison, we used the 18S ribosomal gene sequences of the exact same specimens (based on voucher name identification) analyzed for the RPB2 gene. Based on the 18S ribosomal sequences the mean divergence between different *Peziza* species is 13.1%. It is therefore clear that *Plicaria leiocarpa*

*endocarpoides* cannot be really considered as a species that could be removed from the genus *Plicaria* since the level of divergence it exhibits from other *Plicaria* species is well below that separating well-defined *Peziza* species both in the RPB2 and the 18S ribosomal genes. However, a more recent phylogenetic analysis (Kovács & al. in *Mycologia* 103: 841–853. 2011) based on 28S ribosomal gene sequences suggested, but with relatively weak support, that *Plicaria endocarpoides* is more distantly related to *Plicaria trachycarpa* and *P. carbonaria*.

In conclusion, although according to Art. 53.1 of the *Code* (McNeill & al. in *Regnum Veg.* 146. 2006) the diatom generic name *Detonia* Freng. is illegitimate as a later homonym of the fungal generic name *Detonia* Sacc., we propose herein that *Detonia* Freng. in *Bacillariophyceae* be conserved against *Detonia* Sacc. The latter is not in current use in *Ascomycota* and its use will not be required since its generic type *D. leiocarpa* has been transferred to *Plicaria*, an inclusion supported by morphological and molecular data. Through the conservation of the name *Detonia* Freng., the scientist G.B. De Toni is being commemorated and the stability of nomenclature in diatom literature is best served by avoiding disadvantageous nomenclatural changes.

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## (2032) Proposal to conserve *Pseudocyphellaria*, nom. cons (*Lobariaceae*: *Ascomycota*) with a conserved type

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- (2032) *Pseudocyphellaria* Vain. in *Acta Soc. Fauna Fl. Fenn.* 7(1): 182. 1–22 Nov 1890, nom. cons.  
 Typus: *Ps. crocata* (L.) Vain. (*Lichen crocatus* L.), typ. cons. prop.
- (=) *Crocodia* Link, *Handbuch* 3: 177. 1833, nom. rej.  
 Typus: *C. aurata* (Ach.) Link (*Sticta aurata* Ach.)
- (=) *Phaeostictia* Trevis., *Lichenoth. Veneta*: No. 75 Apr. 1869, nom. rej.  
 Typus (vide Choisy in *Bull. Mens. Soc. Linn. Lyon*, ser. 2, 29: 125. 1960): *P. physciospora* (Nyl.) Trevis. (*Sticta fos-sulata* subsp. *physciospora* Nyl.)
- (=) *Saccardoia* Trevis., *Lichenoth. Veneta*: No. 75. Apr. 1869, nom. rej.  
 Typus (vide Choisy in *Bull. Mens. Soc. Linn. Lyon*, ser. 2, 29: 123, 1960): *S. crocata* (L.) Trevis. (*Lichen crocatus* L.)
- (=) *Parmostictina* Nyl. in *Flora* 58: 363. 11 Aug 1875, nom. rej.  
 Typus: *Sticta hirsuta* Mont.

resulting in the establishment of numerous new generic names that gradually have disappeared from use, a fact reflected in the many names over which the presently widely adopted *Pseudocyphellaria* Vain. is conserved (see Galloway & Laundon in *Taxon* 37: 480–482. 1988). The entry in the *Code* (McNeill & al. in *Regnum Veg.* 146: 217. 2006) needs updating mainly as the result of recent clarifications in the taxonomy of the *Lobariaceae*, but also because there is a mistake concerning the name *Stictina* Nyl. which is illegitimate and may therefore be deleted. Nylander (*Syn. Meth. Lich.* 1: 348. 1860). included in *Stictina* the type of the generic name *Sticta* (Schreb.) Ach. (*Meth. Lich.*: 275. 1803), *Sticta sylvatica* (Hudson) Ach., selected by Eschweiler (*Syst. Lich.*: 20. 1824). Clement & Shear's later typification (*Gen. Fung.*: 332. 1931), which is referred to in the current entry, is thus of no consequence.

Molecular work (see particularly the extensive treatment by Högnabba & al. in *Biblioth. Lichenol.* 100: 157–187. 2009 as well as that of Thomas & al. in *Biblioth. Lichenol.* 82: 123–138. 2002) has clarified the generic situation insofar that it is now clear that *Pseudocyphellaria aurata* (Ach.) Vain. (the currently accepted type of the generic name) belongs in a fairly small genus with mainly tropical

The generic taxonomy within the *Lobariaceae* has since the times of Nylander (about 1850) been unsettled with many suggestions