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OPHIOSTOMA QUERCUS OR OPHIOSTOMA QUERCII?

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ABSTRACT: The name *Ophiostoma quercus*, for a well-known and economically important sapstaining fungus occurring world-wide on hardwoods and commercially produced pines, is to be preferred over *O. quercii* in view of grammatical rules of Latin.

KEYWORDS: species, specific epithet, nomenclature, oak decline, orthography

Ophiostoma quercus (Georgévitch) Nannf. is a fungus that occurs on various hardwoods such as *Quercus* and *Fagus* in the Northern Hemisphere (Brasier & Kirk, 1993). The fungus has often been associated with Oak Decline in central and eastern Europe (Anonymous, 1990), and is closely related to the Dutch Elm Disease pathogens *O. ulmi* (Buisson) Nannf. and *O. novo-ulmi* Brasier (Harrington et al., 2001). In the Southern Hemisphere, *O. quercus* is frequently found on hardwoods, but it also occurs commonly on commercially produced *Pinus* spp. (De Beer et al., 2003). Although not associated with tree diseases in the Southern Hemisphere, the fungus forms part of an economically important group of fungi associated with sapstain, or bluestain, of timber, reducing its commercial value.

In recent literature, considerable confusion existed surrounding the spelling of the species name. Some authors referred to the fungus as *O. quercii*, while others used the name *O. quercus*. In this paper, we consider requirements pertaining to species names in the International Code of Botanical Nomenclature. Due to the nature of the contents of the paper, the spelling and capitalization of species epithets, as well as the spelling and abbreviation of author names, are cited exactly as they were printed in the original publications.

Ophiostoma quercii was first described in 1926 as *Ceratostomella Quercii* Georgévitch (Georgévitch, 1926). The following year, the same author changed the name to *Ceratostomella quercus* Georgevitch (Georgevitch, 1927). In 1934, the species was transferred to the genus *Ophiostoma* Sydow & P. Sydow, and the new combination was referred to as *Ophiostoma quercus* (Georgév.) Nannf. (Melin & Nannfeldt, 1934).

Moreau (1952) named the fungus *Ceratocystis querci* (Georgévitch) C. Moreau. Hunt (1956), without reference to Moreau's paper, synonymised what he called *Ceratostomella querci* Georgew., with *Ceratocystis piceae* (Münch) Bakshi.

Przybyl & De Hoog (1989) referred *C. piceae*, including *Ceratostomella querci* as a synonym, back to the genus *Ophiostoma*, following De Hoog & Scheffer's (1984) distinction between *Ophiostoma* and *Ceratocystis*. Brasier & Kirk (1989) suggested that the hardwood and conifer forms of *O. piceae* may be distinct species. For the previous 33 years, the hardwood form had been treated by most authors as a synonym of *O. piceae* (Hunt, 1956; Griffin, 1968; Olchowecki & Reid, 1973; Upadhyay, 1981; Hutchison & Reid, 1988; Przybyl & De Hoog, 1989). Brasier & Webber (1990) suggested that 'the name *O. querci* may need to be re-established for the hardwood taxon.' This was formally done by Morelet (1992), who referred to it as *Ophiostoma querci* (Georgévitch) Nannfeldt. The separation of the two species was confirmed by several studies (Brasier & Kirk, 1993; Brasier & Stephens, 1993; Przybyl & Morelet, 1993; Delatour et al., 1994; Halmshlager et al., 1994; Pipe et al., 1995; Kim et al., 1999; Harrington et al., 2001). However, confusion persisted in these and other publications about the correct ending of the epithet for the hardwood species. Most authors followed the suggestions of Brasier & Webber (1990) and Morelet (1992), referring to the hardwood species as *O. querci* (Brasier & Kirk, 1993; Brasier & Stephens, 1993; Przybyl & Morelet, 1993; Delatour et al., 1994; Farrell et al., 1997, 1998; Okada et al., 1998; Harrington et al., 2001). Some authors, however, chose to use *O. quercus* (Halmshlager et al., 1994; Pipe et al., 1995; Kim et al., 1999; Schirp et al., 1999; Xiao et al., 1999; Brasier, 2001; Gagné et al., 2001).

In only two papers, the choice of the spelling was motivated. The first was Halmshlager et al. (1994), who pointed out that '*Ophiostoma quercus* (Georgév.) Nannf. is the name Nannfeldt used in the original paper, when he placed *Ceratostomella quercus* in the genus *Ophiostoma*.' Furthermore, they stated that 'the name *O. querci* is not correct because in Latin the genitive of *Quercus* is *Quercūs* ("U"-declension)' (Halmshlager et al., 1994). Without referring to the paper of Halmshlager et al. (1994), Pipe et al. (1995) came to the same conclusion, stating that 'the genitive case of the Latin noun *quercus* (= oak), which is in the fourth declension, is *quercūs*, not *querci*.' The basionym for the species is, however, *Ceratostomella Querci* (Georgévitch, 1926), but this was rightly corrected by its original author in 1927 according to Articles 60.1 and 32.5 ICBN (Greuter et al., 2000). Most Latin dictionaries consider only the U-declension for the name of the oak, *Quercus*. Lewis & Short (1879), cite only one ancient writer who used the second declension genitive *querci*, namely Palladius Rutilius Taurus, who flourished c. AD 350, at a time when the standard of written Latin was at a low ebb. The use of the second declension genitive should, therefore, rather not be considered as a rule.

The combination proposed by Melin & Nannfeldt (1934), *Ophiostoma quercus*, was thus grammatically correct. In conclusion, we suggest that the species name should be referred to as follows:

Ophiostoma quercus (Georgévitch) Nannfeldt, Svenska Skogsvårdsföringens Tidskrift 3-4: 408. 1934 (basionym: *Ceratostomella quercus* (as '*Querci*') Georgévitch, *C. R. Acad. Sci.* 183: 759. 1926).

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