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Rhynchosporium graminicola revisited and reinstated

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Abstract: Braun, U. 2016: *Rhynchosporium graminicola* revisited and reinstated. Schlechtendalia **30**: 39–40.

The nomenclature of *Rhynchosporium* species is critically discussed. *R. graminicola*, described from Germany and adjacent countries on barley and rye, is lecto- and epitypified, and *R. commune* is included in the synonymy of this species.

Zusammenfassung: Braun, U. 2016: *Rhynchosporium graminicola* nochmals aufgegriffen und wieder eingeführt. Schlechtendalia **30**: 39–40.

Die Nomenklatur von *Rhynchosporium*-Arten wird kritisch diskutiert. *R. graminicola*, beschrieben aus Deutschland und Nachbarländern von Gerste und Roggen, wird lecto- und epitypisiert und *R. commune* wird in die Synonymie dieser Art gestellt.

Key words: *Rhynchosporium commune*, *Ramularia hordei*, nomenclature, lectotypification, epitypification.

Published online 07 Nov. 2016

The first valid publication of the genus *Rhynchosporium* and its type species *R. graminicola* dates back to Frank (1897). He mentioned that the latter name was coined by his assistant E. Heinsen. However, the genus name and *R. graminicola* were validated by Frank (1897), and both names have to be cited as "ex A.B. Frank". For a long time, *Rhynchosporium* was a monotypic genus, until Caldwell (1937) added the new species *R. orthosporium* Cadwell (Braun 1995). Collections on various hosts characterised by having conidia with short oblique beaks were traditionally assigned to a single species, *R. secalis* (Oudem.) Davis. First attempts to elucidate the phylogenetic position of *Rhynchosporium* have been made by Goodwin (2002). He demonstrated a close relationship between the latter genus and the discomycetous genera *Pyrenopeziza* and *Tapesia* (*Helotiales*). Comprehensive molecular analyses of numerous *Rhynchosporium* strains led to the discovery of cryptic species within *R. secalis s. lat.* and to the introduced of the new species *R. agropyri* Zaffarano et al., *R. commune* Zaffarano et al., and *R. lolii* K.M. King et al. (Zaffarano et al. 2011; King et al. 2011, 2013; Torriani et al. 2014). Unfortunately, Zaffarano et al. (2011) did not care about available older synonyms of *R. secalis s. lat.* The new species are morphologically not or barely distinct from *R. secalis* (*s. str.*) on rye, but genetically clearly separated and connected with obvious host range differences. *R. commune* was introduced for the common widespread *Rhynchosporium* on barley as principal host. However, the name *R. commune* is not tenable and has older synonyms. *R. commune* is known from Australia on wild and cultivated barley species (Zaffarano et al. 2011). *Ramularia hordei* McAlpine, described from Australia on *Hordeum vulgare*, is an older name for the barley *Rhynchosporium*. Sutton & Waller (1988) re-examined type material and reduced this species to synonymy with *R. secalis* (*s. lat.*). But there is an additional species that has to be taken into consideration as name for the barley *Rhynchosporium*, viz. *R. graminicola* the type species of the genus. Frank (1897) failed to designate a holotype, but he cited several collections on barley and rye (potential syntypes) and published a good drawing [on rye collected in 1896 in Germany, Saxony, Görlitz; Brandenburg, southern Mark; and in 1897, Rheinland; on barley in 1894, Poland, Karpacz ("Krumhübel"); and in 1896, Poland ("Oberschlesien") and Austria, Tirol, Ötztal]. Therefore, syntypes of *R. graminicola* encompassed in the original description collections on barley and rye which nowadays represent two distinct species. Hence, the application of the name *R. graminicola* requires a clarification by lectotypification. Frank (1897) mentioned that *R. graminicola* was first detected on rye by E. Heinsen, but Frank's whole publication, from the title, the description of the fungus to the only illustration on page 519, focusses on *Rhynchosporium* on barley. Therefore, it is fully justified to confine the name *R. graminicola* to the barley *Rhynchosporium* element by lectotypification, above all since the name *R. commune* would be threatened by *Ramularia hordei* in any case. Syntypes of *R. graminicola* are not preserved. Therefore, the original drawing, based on *Rhynchosporium* on barley, is designated as lectotype in accordance with Art. 8.1, 9.2, and 40.4 of the Code (ICN).

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In order to fix the application of this name, ZT Myc2338 (type of *R. commune*) is designated as epitype for *R. graminicola*.

Rhynchosporium graminicola Heinsen ex A.B. Frank, Wochenschr. Brauerei **14**: 518, 1897.

Lectotype (designated here, MBT373499): Original drawing, based on *R. graminicola* on barley (Frank 1897: 519, unnumbered drawing). **Epitype** (designated here, MBT373500): Switzerland, Canton Vaud, Cugy, isolated from barley (*Hordeum vulgare*), 1999 (ZT Myc2338).

= *Ramularia hordei* McAlp., Proc. Linn. Soc. New South Wales **27**: 379, 1902.
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Digitale Literatur/Digital Literature

Zeitschrift/Journal: Schlechtendalia

Jahr/Year: 2016

Band/Volume: 30

Autor(en)/Author(s): Braun Uwe

Artikel/Article: Rhynchosporium graminicola revisited and reinstated 39-40