

Addendum to the typification of *Butyriboletus regius*

VÁCLAV JANDA^{1*}, MARTIN KRÍŽ², JAN HOLEC²

¹Ondříčkova 29, CZ-130 00 Praha 3, Czech Republic; janda.vaclav@gmail.com

²National Museum, Mycological Department, Cirkusová 1740, CZ-193 00 Praha 9, Czech Republic

*corresponding author

Janda V., Kríž M., Holec J. (2019): Addendum to the typification of *Butyriboletus regius*. – Czech Mycol. 71(1): 33–35.

An epitype is designated for *Butyriboletus regius*. The authors briefly explain this step.

Key words: epitype, lectotype, nomenclature, taxonomy, Czech Republic.

Article history: received 10 January 2019, revised 13 February 2019, accepted 17 February 2019, published online 5 March 2019.

DOI: <https://doi.org/10.33585/cmy.71102>

Janda V., Kríž M., Holec J. (2019): Dodatek k typifikaci hříbu královského – *Butyriboletus regius*. – Czech Mycol. 71(1): 33–35.

Pro *Butyriboletus regius* je stanoven epityp. Autoři tento krok krátce odůvodňují.

INTRODUCTION

In our previous paper (Janda et al. 2019), Krombholz's colour plate number 7 of *Butyriboletus regius* (Krombh.) D. Arora & J.L. Frank was designated a lectotype for the name of this species. From the technical point of view, the illustrations published in his work (Krombholz 1832) are hand-coloured lithographs (Stafleu & Cowan 1979, Šebek 1983). During our ongoing examination of the iconography of *B. regius* we have found some dissimilarities between particular copies of Krombholz's work, regarding not only the "position, presence and absence of contents, indexes, errata" (Stafleu & Cowan 1979: 679), but also the colour rendering. The reason is that uncoloured lithoprints were handed over to different illustrators, i.e. craftsmen who coloured them (Šebek 1983). Consequently, plates slightly vary in overall colouring and some other details (and, interestingly, some copies contain mirror-reversed tables). For example, the colour of the pilei in plate 7, fig. 1 is darker in some copies (e.g. in the library of Department of Botany of the Moravian Museum in Brno, signature III126/18372), while it is lighter in others (e.g. in the library of the Mycological Department of the National Museum in Prague, signature 41A62). The olive tint on the pilei in plate 7,

figs. 3 and 6, noticeable in some copies, may represent the colour of spore deposit fallen out of another fruitbody in case they grew close to each other. However, it may also be the result of excessive shading during hand-colouring.

The ambiguity mentioned above and the fact that the illustration serving as a type does not offer characters needed for further type study of *Butyriboletus regius* by means of contemporary methods (especially microscopic and molecular ones) led us to the decision to support the lectotype by additionally designating an epitype (Turland et al. 2018).

RESULTS AND DISCUSSION

Butyriboletus regius (Krombh.) D. Arora & J.L. Frank, *Mycologia* 106(3): 466, 2014

≡ *Boletus regius* Krombh. in *Naturgetreue Abbildungen und Beschreibungen der essbaren, schädlichen und verdächtigen Schwämme* 2, p. 3, 1832 [basionym]

Lectotype. J.V. Krombholz, *Naturgetreue Abbildungen und Beschreibungen der essbaren, schädlichen und verdächtigen Schwämme* 2, tab. 7, 1832, MycoBank MBT 381726 (designated in Janda V., Kříž M., Kolařík M., *Butyriboletus regius* and *Butyriboletus fechtneri*: typification of two well-known species, *Czech Mycol.* 71(1): 7, 2019).

Epitype (designated here, MycoBank MBT 385381). Czech Republic, Central Bohemia, Praha-Točná, Šance Nature Reserve, under *Quercus* and *Tilia*, 12 June 2016, leg. T. Pavelka, L. Opat & V. Janda, det. V. Janda. The epitype is deposited in the Mycological Department of the National Museum, Prague (PRM 946297). A sequence obtained from it (LS992174, ITS rDNA) is deposited in NCBI GenBank. Colour photo: Janda et al. (2019: p. 12, fig. 4).

The epitype is represented by a well-documented collection (described, photographed, examined under a microscope, sequenced) from the type region of *Butyriboletus regius* – Prague and its southern surroundings (Janda et al. 2019). In the cited paper, the unofficial term ‘topotype’ (Turland 2013: 62) was used for it.

Although some illustrators of the work by Krombholz (1832) are known by name (Šebek 1983), plate 7, designated as a lectotype (Janda et al. 2019: 7), is from an anonymous author. As a whole, we consider it a very good synthesis of the key characters of *B. regius*, especially figures 1, 4, 7 and 8 (on the other hand, figures 3 and 6 are less characteristic, but still acceptable).

ACKNOWLEDGEMENTS

The work was financially supported by the Ministry of Culture of the Czech Republic as part of the long-term development of the research organisation National Museum (DKRVO 2019-2023/3.I.a, 00023272).



Fig 1. *Butyriboletus regius* – epitype fruitbody in situ, Praha-Točná, Czech Republic, under *Quercus* and *Tilia*, 12 June 2016 (PRM 946297). Photo V. Janda.

REFERENCES

- JANDA V., KRÍŽ M., KOLAŘÍK M. (2019): *Butyriboletus regius* and *Butyriboletus fechtneri*: typification of two well-known species. – Czech Mycol. 71(1): 1–32. DOI: <https://doi.org/10.33585/cmy.71101>
- KROMBHOLZ J.V. (1832): Naturgetreue Abbildungen und Beschreibungen der essbaren, schädlichen und verdächtigen Schwämme. Zweites Heft. – J.G. Calve, Praha.
- STAFLEU F.A., COWAN R.S. (1979): Taxonomic literature, ed. 2, vol. 2: H-Le. – Bohn, Scheltema & Holkema, Utrecht.
- ŠEBEK S. (1983): Ilustrátoři Krombholzova díla [The illustrators of Krombholz's work]. – Mykol. Listy 11: 19–22. [in Czech]
- TURLAND N.J. (2013): The code decoded. – 169 p., Regnum Vegetabile 155. Koeltz Scientific Books, Königstein.
- TURLAND N.J., WIERSEMA J.H., BARRIE F.R., GREUTER W., HAWKSWORTH D.L., HERENDEEN P.S., KNAPP S., KUSBER W.-H., LI D.-Z., MARHOLD K., MAY T.W., MCNEILL J., MONRO A.M., PRADO J., PRICE M.J., SMITH G.F., eds. (2018): International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code) adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017. – Regnum Vegetabile 159. Koeltz Botanical Books, Glashütten.
DOI: <https://doi.org/10.12705/Code.2018>