

Outlineoffungi.org - Note 1305 *Kgaria*

Web-links: [Index Fungorum](#), [Facesoffungi](#), [MycoBank](#), [GenBank](#)

Kgaria (T.H. Li, Watling, N.M. Greg.) Halling, Fechner & Davoodian

Halling et al. (2024) introduced *Kgaria* within *Boletaceae* (*Boletales*, *Agaricomycetes*, *Basidiomycota*). The second species is *K. similis* Halling, Fechner & Davoodian. *Kgaria* resembles *Porphyrellus*-like taxa, and Halling et al. (2024) hypothesized that neither *Tylopilus* nor *Porphyrellus* are suitable taxa for a new genus, thus justifying the creation of *Kgaria*. Watling & Gregory (1989) indicated that *Tylopilus* was abundant in Australasia, as many undocumented species. They conducted treatments on boletes from Australia, with a preliminary survey published in 1999. Further studies have documented new taxa, clarified concepts, and inferred phylogenetic relationships. Osmundson et al. (2021) have clarified earlier concepts used to delimit *Tylopilus* worldwide. The main characters of this genus include a dark brown to pale lilac/violet, or very infrequently, a nearly black bolete with a dark brown spore deposit and a sequence of oxidation reactions that move from blue to red, then practically black. Additionally, indicative are idiosyncratic blue-green pigment encrustations, or cyanogranules, and a corresponding color reaction of the hyphae on the surfaces of the pileus and stipe. There are two species consisting of *Kgaria*, namely *Kgaria cyanogramulifer* (T.H. Li, Watling, N.M. Greg.) Halling, Fechner & Davoodian (type species), and *Kgaria similis* Halling, Fechner & Davoodian. Molecular analyses of multiple genes, including LSU, *tef-1*, and *rpb2*, are used to confirm the new genus.

References

- Halling RE, Fechner NA, Holmes G, Davoodian N. 2024 – *Kgaria* (*Boletaceae*, *Boletoideae*) gen. nov. in Australia: Neither a *Tylopilus* nor a *Porphyrellus*. *Fungal Systematics and Evolution* 12(1), 47–62.
- Osmundson TW, Bougher NL, Robinson RM, Halling RE. 2021 – *Rubinoboletus phaseolisporus* (*Boletaceae*) from Western Australia is a *Tylopilus* with bean-shaped spores. *Nuytsia* 32, 87–97.
- Watling R, Gregory NM. 1991 – Observations on the boletes of the Cooloola Sand-mass, Queensland and notes on their distribution in Australia: Part 3. Lamellate taxa. *Edinburgh Journal of Botany* 48, 353–391.

Entry by

Monthien Phonemany, Center of Excellence in Fungal Research, School of Science, Mae Fah Luang University, Chiang Rai 57100.

(Edited by **Maryam Tavakol Noorabadi & Subodini N. Wijesinghe**)

Published online 29 May 2024