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[Polonosporaceae](#) Błaszcz., Niezgoda, B.T. Goto, Magurno

[Polonosporaceae](#) was placed in [Glomeromycota](#) based on analysis of partial SSU, LSU, ITS and RPB1 sequences ([Błaszczowski et al., 2021](#)). The type genus for this family is [Polonospora](#) Błaszcz., Niezgoda, B.T. Goto, Magurno. [Polonospora](#) is typified by [Polonospora polonica](#) (Błaszcz.) Błaszcz., Niezgoda, B.T. Goto, Magurno. [Polonospora polonica](#) (basonym *Acaulospora polonica*) clustered in a distinct clade at the family rank as a sister (divergent) clade to *Archaeosporaceae* and *Ambisporaceae*. The number of spore walls distinguishes [Polonosporaceae](#) from *Archaeosporaceae* and *Ambisporaceae* ([Błaszczowski et al., 2021](#)). This newly recognized family is included in *Archaeosporales*, has a worldwide distribution with occurrences in tropical and temperate regions associated with roots of several hosts, with additional undescribed species ([Błaszczowski et al., 2021](#); [Malicka et al., 2022](#)). That erection of a new family, as well as genus, and combination reveals the importance of new studies with molecular approaches to determine the correct position of clades within the [Glomeromycota](#).

References

- Błaszczowski J, Niezgoda P, Meller E, Milczarski P et al. 2021 – New taxa in *Glomeromycota*: *Polonosporaceae* fam. nov., *Polonospora* gen. nov., and *P. polonica* comb. nov. *Mycological Progress* 20, 941–951. <https://doi.org/10.1007/s11557-021-01726-4>
- Malicka M, Magurno F, Piotrowska-Seget Z. Phenol and polyaromatic hydrocarbons are stronger drivers than host plant species in shaping the arbuscular mycorrhizal fungal component of the mycorrhizosphere. *International Journal of Molecular Sciences*. 2022; 23(20),12585. <https://doi.org/10.3390/ijms232012585>

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(Edited by **Kevin D. Hyde & Maryam Tavakol Noorabadi**)

Published online 5 April 2024