

## Outlineoffungi.org - Note 634 *Neolentithecia*

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

*Neolentithecia* C. Phukhams., K.D. Hyde & Y. Li

[Hyde et al. \(2021\)](#) introduced *Neolentithecia* as a monotypic genus in *Lentitheciaceae* (*Pleosporales*, *Dothideomycetes*) to accommodate *N. changchunensis* Phukhams., K.D. Hyde, W.X. Su & Y. Li. This fungus was collected as a saprobe on dried twigs of *Sorbus* sp. from a terrestrial habitat in Jilin Province, China ([Hyde et al. 2021](#)). The genus is characterized by solitary, immersed, globose, uniloculate, ascomata with a central and papillate ostiole, a thick peridium of cells arranged in *textura angularis*, cellular pseudoparaphyses, clavate, long pedicellate asci with a well-developed ocular chamber and brown, oval to obovoid, muriform ascospores ([Hyde et al. 2021](#)). *Neolentithecia* has similar morphology to *Murilentithecium* based on its globose ascomata, clavate asci and muriform ascospores ([Wanasinghe et al. 2014](#)) in *Lentitheciaceae*, but these two genera are not monophyletic. Phylogenetically, *Neolentithecia* has a sister affiliation to *Darksidea*, *Halobyssothecium* and *Lentithecium*, but differs in having brown, muriform ascospores. Based on the multi-gene (LSU, SSU, ITS and *tef1*) phylogenetic analyses, *Neolentithecia changchunensis* has a monophyletic affinity to *Lentithecium aquaticum* (CBS 123099). However, *L. aquaticum* is distinct from *Neolentithecia changchunensis* in its lenticular ascomata and broadly fusiform, hyaline, two-celled ascospores with distinctive globules, whereas *Neolentithecia* has globose ascomata and pale to brown, oval or obovoid, muriform ascospores without any guttules ([Zhang et al. 2009](#), [Tanaka et al. 2015](#), [Hyde et al. 2021](#)). The exact generic placement of *Lentithecium aquaticum* should be further investigated. Currently, *Neolentithecia changchunensis* is only known from its sexual morph characteristics and the asexual morph of the genus should be confirmed and discussed its relatedness to asexual morphic genera in the family. In a recent study, [Liu et al. \(2022\)](#) introduced *Crassoascoma* to accommodate *C. potentillae* which was collected from living and decayed branches of *Potentilla fruticosa* in Qinghai-Tibet Plateau, China. The phylogenetic analyses of [Liu et al. \(2022\)](#) showed that the later genus has a close phylogenetic affinity to *Darksidea*, *Halobyssothecium* and *Lentithecium* in *Lentitheciaceae*. They did not include *Neolentithecia changchunensis* in their phylogenetic analyses which was already published. Therefore, the phylogenetic relationship of *Crassoascoma* and *Neolentithecia* should be further investigated. However, they differ in their asci and ascospore characteristics ([Hyde et al. 2021](#), [Liu et al. 2022](#)).

### References

- Hyde KD, Suwannarach N, Jayawardena RS, Manawasinghe IS, et al. 2021 – Mycosphere notes 325-344 – Novel species and records of fungal taxa from around the world. *Mycosphere* 12(1), 1101–1156 <https://www.doi.org/10.5943/mycosphere/12/1/14>
- Liu ZP, Zhang SN, Cheewangkoon R, Zhao Q, et al. 2022 – *Crassoascoma* gen. nov. (*Lentitheciaceae*, *Pleosporales*): Unrevealing Microfungi from the Qinghai-Tibet Plateau in China. *Diversity* 14, 15. <https://www.mdpi.com/1424-2818/14/1/15>
- Tanaka K, Hirayama K, Yonezawa H, Sato G, et al. 2015 – Revision of the *Massarineae* (*Pleosporales*, *Dothideomycetes*). *Studies in Mycology* 82, 75–136. <https://www.sciencedirect.com/science/article/pii/S0166061615000160>
- Wanasinghe DN, Jones EBG, Camporesi E, Boonmee S, et al. 2014 – An exciting novel member of *Lentitheciaceae* in Italy from *Clematis Vitalba*. *Cryptogamie Mycologie* 35, 323–337. <https://www.doi.org/10.7872/crym.v35.iss4.2014.323>

Zhang Y, Wang HK, Fournier J, Crous PW, et al. 2009 – Towards a phylogenetic clarification of *Lophiostoma/Massarina* and morphologically similar genera in the *Pleosporales*. Fungal Diversity 38, 225–251 <https://www.fungaldiversity.org/fdp/sfdp/FD38-13.pdf>

**Entry by**

**Dhanushka N. Wanasinghe**, Center for Mountain Futures, Kunming Institute of Botany, Chinese Academy of Sciences, Honghe 654400, Yunnan, China

(Edited by **Kevin D. Hyde & Chayanard Phukhamsakda**)

Published online 2 December 2022